

Preparing Students for ACT, Postsecondary, and Career Success

Participant Manual

Tennessee Department of Education | 2016 Regional Educator Summit

Welcome, Participants!

We're excited to welcome you to this summer's **Regional Educator Summit**. We're impressed by your desire for professional learning and growth, and we hope you find this course productive and inspiring. As you engage in this training content over the next two days, we hope you make many connections to your own classroom practice. We look forward to hearing about the ways you implement this course content in the upcoming school year!

We are also proud to share that the content of this training was developed **by Tennessee educators, for Tennessee educators**. We believe it's important for professional development to be informed by current educators, who work in schools with students daily.

In particular, we'd like to thank the following educators who contributed to the creation and review of this content:

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Preparing Students for ACT, Postsecondary, and Career Success

Introduction and Training Overview

WHERE ARE WE GOING?

Education in Tennessee is on the rise. With the close of the Race to the Top era, we celebrate a period of groundbreaking change. During this period, Tennessee saw striking successes in student achievement that also called attention to the continued need to ensure students' long-term success. We now launch a new chapter where we will build on the strong foundation in each of our schools and districts to realize our goals for Tennessee students. If we are successful:

Districts and schools in Tennessee will exemplify excellence and equity such that all students are equipped with the knowledge and skills to successfully embark upon their chosen path in life.

This is our unifying vision: success for all students upon graduation from high school. This is how Tennessee Succeeds.

To this end, we have set three ambitious goals to guide our work through the next five years:

1 Tennessee will rank in the top half of states on the National Assessment of Educational Progress (NAEP) by 2019.

In 2013, our state posted the largest improvements ever recorded on the NAEP test, also known as the Nation's Report Card. These gains brought the state's ranking from the mid-40s (rankings vary by subject) into the mid-30s. We hope to see the state's ranking continue to increase so that our students' achievement places Tennessee in the top half of states by 2019.

2 The average ACT composite score in Tennessee will be a 21 by 2020.

The ACT serves as a gateway to college and career in Tennessee, determining students' eligibility for the HOPE scholarship, requirements for postsecondary remedial or developmental coursework, and sometimes entry-level salary. Between 2011 and 2015, we have seen the average Tennessee ACT score for public students increase from 19.0 to 19.4. By 2020, we will raise this number to 21, signaling that the average student in Tennessee is prepared for postsecondary coursework.

3 The majority of high school graduates from the class of 2020 will earn a postsecondary certificate, diploma, or degree.

Governor Haslam's Tennessee Promise initiative, which makes community and technical college free to all Tennessee high school graduates, signals the commitment across the state to prepare students for a future where most Tennessee jobs require postsecondary success. Yet, we are far from this goal. While almost 60 percent of high school graduates enroll in postsecondary, only 24 percent complete. For the graduating class of 2020, we aim to shift the balance so that the majority of students earn a certificate, diploma, or degree within six years of graduation.

PRIORITY AREAS

Early Foundations & Literacy

Building skills in early grades to contribute to future success

High School & Bridge to Postsecondary

Preparing significantly more students for postsecondary completion

All Means All

Providing individualized support and opportunities for all students with a focus on those who are furthest behind

Educator Support

Supporting the preparation and development of an exceptional educator workforce

District Empowerment

Providing districts with the tools and autonomy they need to make the best decisions for students

Objectives

As a result of this two-day training, all participating educators will:

- Understand their role in ensuring their students are “ready” for postsecondary and career
- Feel prepared to refine their instructional practices and relationships to support students to be “ready” for postsecondary and career

Three main essential questions will be themes throughout all four modules of training:



What **pathways** are available to students and how do I guide them along these pathways?

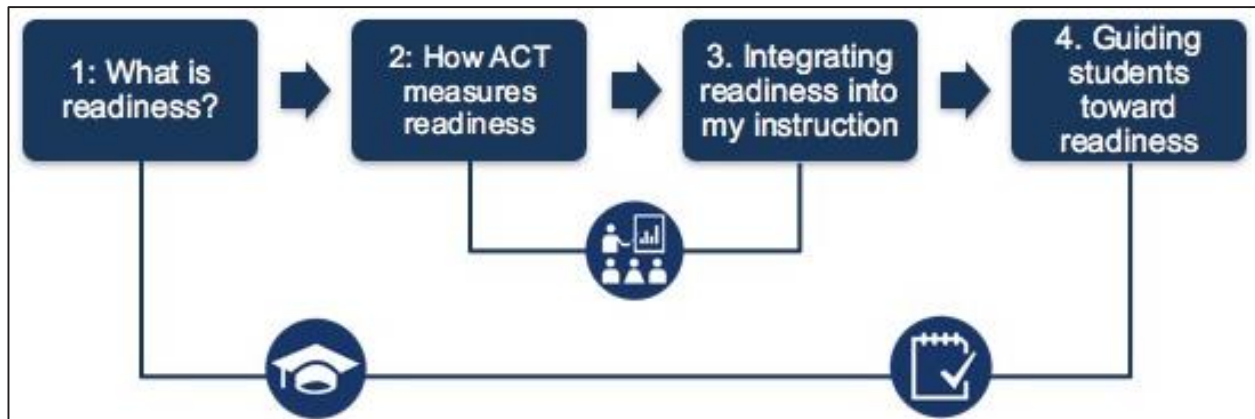


What are the characteristics that indicate students are “ready” to be successful on their chosen pathways and how can I measure my students’ **readiness**?



How can I refine my **instruction** to grow my students’ readiness and probability of success after graduation?

All four modules will feature “key ideas” that link to these three themes and will ensure all participants leave understanding their role and feel prepared.



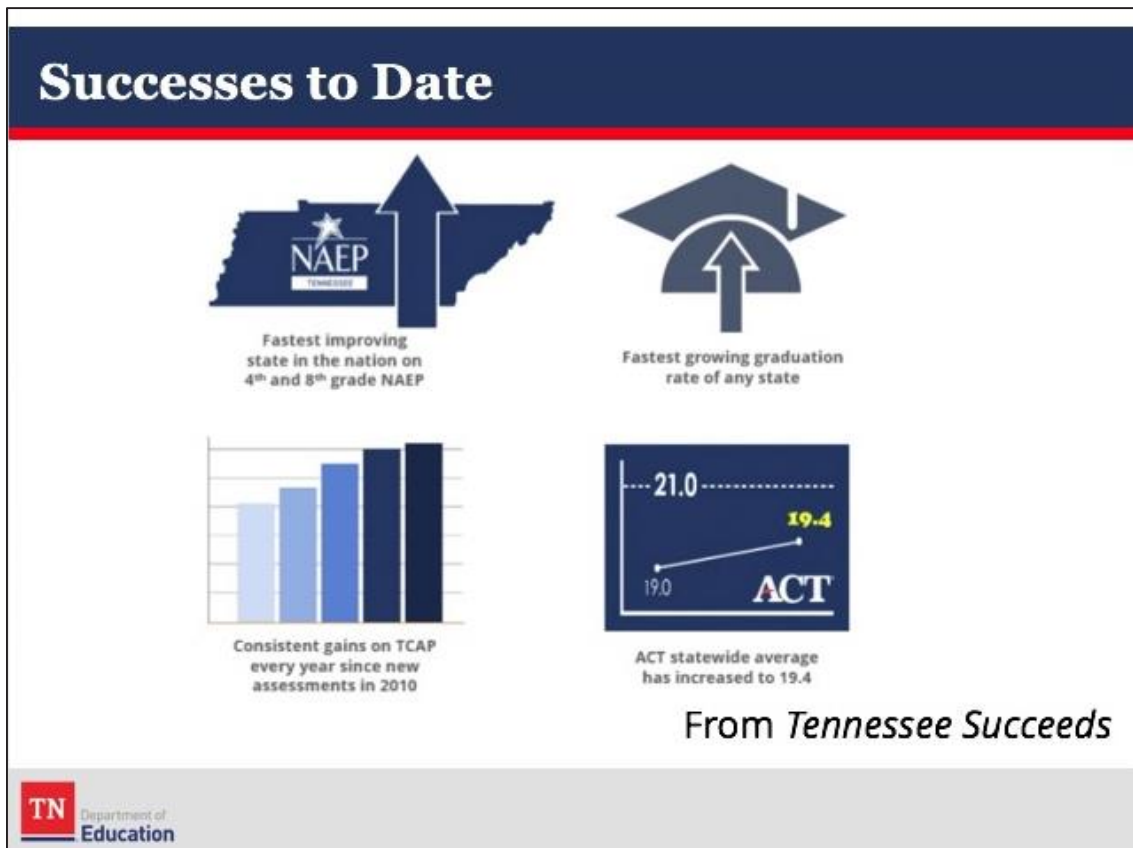
Let's get started!

Module 1:
What is Student Readiness?
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Module 1: What is Student Readiness?

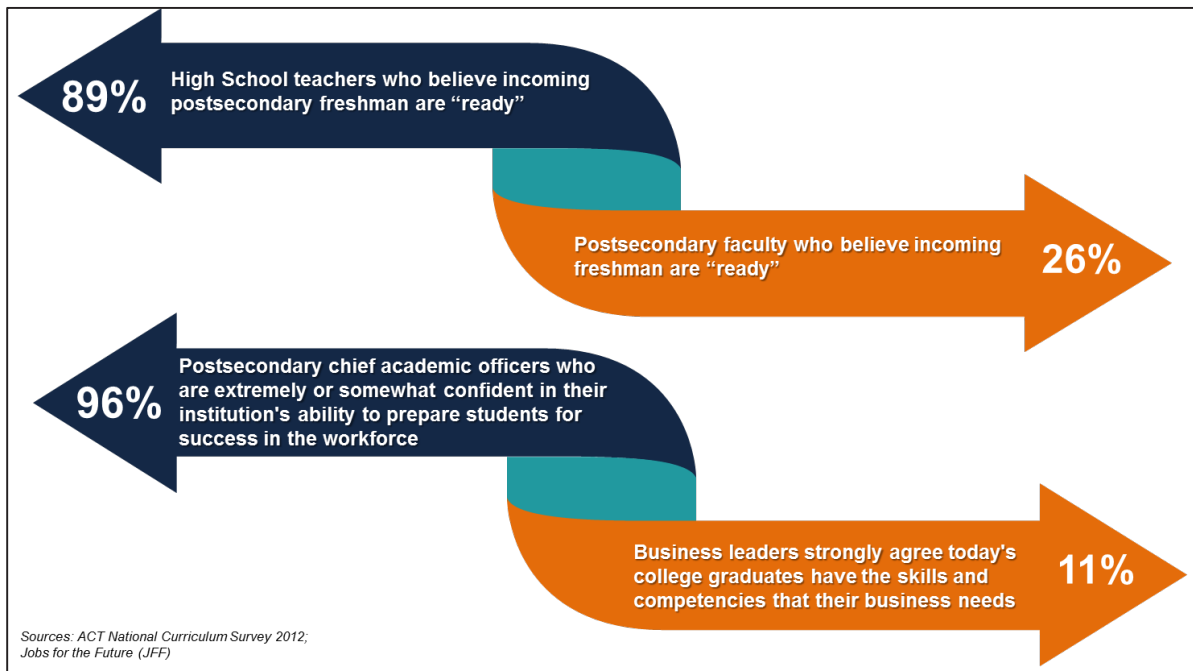
Objectives

- Understand the department's definition of postsecondary and career pathway
- Differentiate between "preparedness" and "readiness" and define characteristics of students who are "ready" for postsecondary and career
- Identify classroom and school-based strategies that prepare students to be ready for postsecondary and career



State Postsecondary Challenges

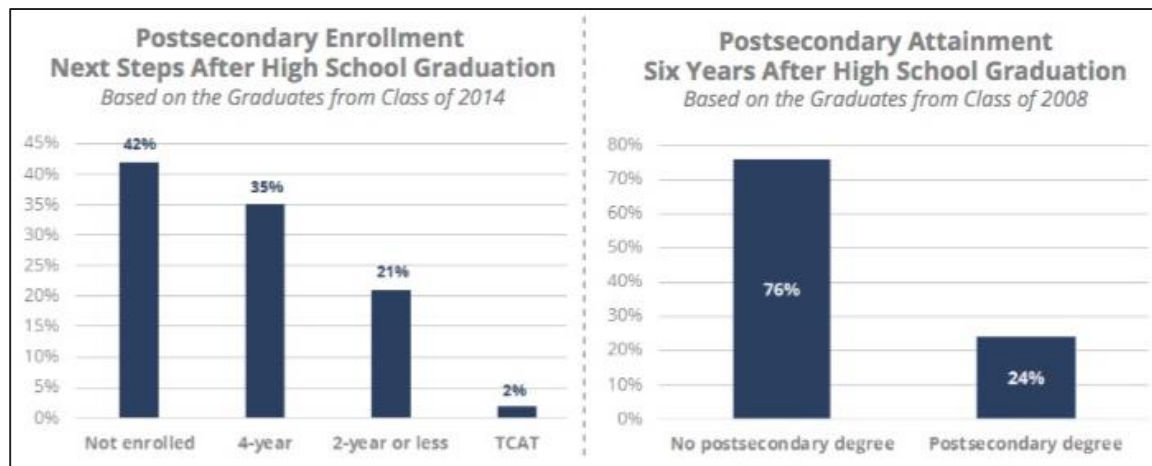
- In fall 2013, 42 percent of high school graduates did not enroll in postsecondary (*Tennessee Succeeds*).
- Almost 60 percent of first-time freshmen in TN community colleges took at least one remedial or developmental course (*Tennessee Succeeds*).
- Tennessee's six-year graduation rate is 28 percent for community colleges and 58 percent for universities (*Tennessee Succeeds*).



Reflection:

- Which statistic is most startling or compelling to you? Why?

The Impact on Students



Reflection:

- From the graphs above, which statistic is most startling to you? Why?



Labor Market Fortunes

- “Economic prospects for teens and young adults in the nation’s 100 largest metropolitan areas plummeted between 2000 and 2011. On a number of measures—employment rates, labor force underutilization, unemployment, and year-round joblessness—teens and young adults fared poorly, and sometimes disastrously.”
- “Those who leave high school without a diploma [...] enter the labor market [and] face fairly bleak employment prospects without future education and training.”

- Retrieved from *“The Plummeting Labor Market Fortunes of Teens and Young Adults”*
(Sum, Khatiwada, Trubskyy, and Ross, 2014).

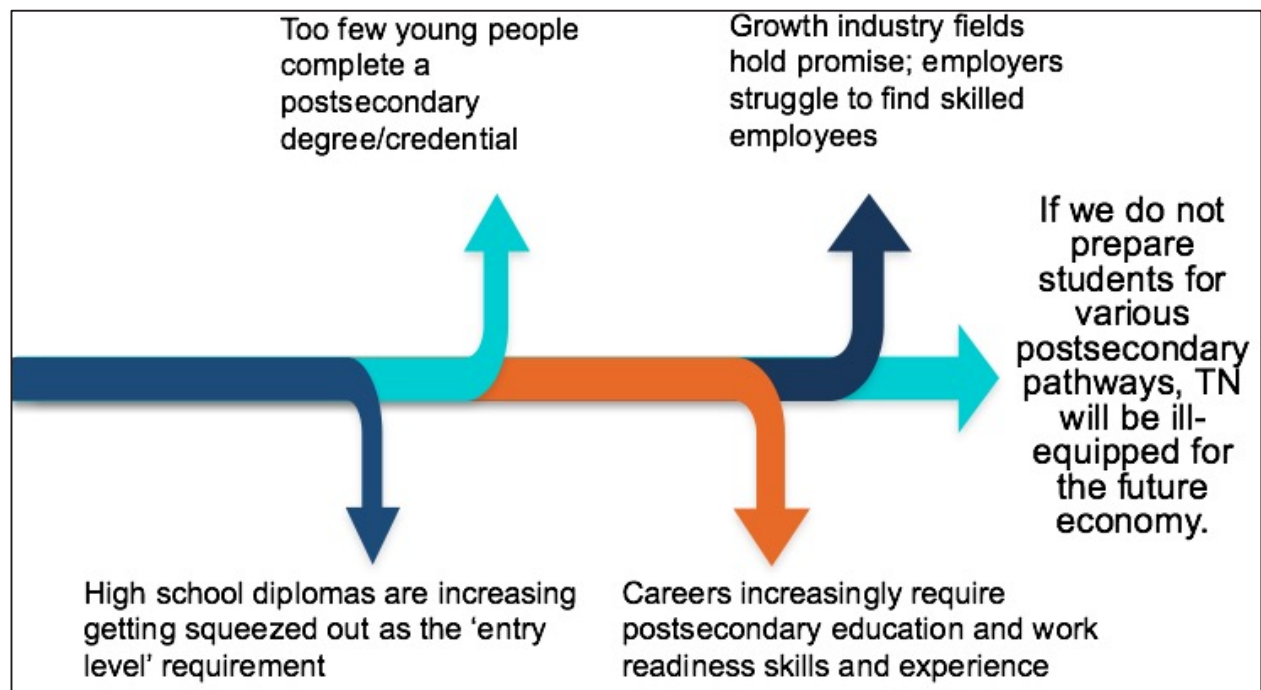
- “A gloomy report on the future job market in Tennessee, released this past week by the state, suggests that up 1.4 million people, or half of all current workers, are susceptible to losing their jobs to automation. Called the ‘Tennessee Workforce Disruption Index,’ the report details findings of a study by the Center for Economic Research in Tennessee...”
- “According to the report, automation doesn't eliminate the need for labor; it changes the way the workplace is configured, and makes new demands on educational facilities on how the workforce should be trained.”
- “History demonstrates that a shift toward heightened technological demands of the business community does not likely coincide with declining demand for labor,” reads the report, “Automation of workplace tasks will displace workers, but not replace workers.”
- “Rural counties are more vulnerable to the disruptive effects of automation,” the report notes. “The solution for them is education,” Department of Economic & Community Development Commissioner Randy Boyd said, “especially the technical schools. [...] All of it is free now, so there is no excuse not to take advantage of it.”

- Retrieved from *“Tenn. study: Half of all jobs could be replaced by automation”* (Williams, Chambers, Knoxville News Sentinel, March 20, 2016).

Reflection:

- We’ve read a series of research about educational attainment and the labor market. What are the implications of this research? What does this mean for our schools and our students?

Critical Connections



Defining Postsecondary Pathways

Independently read "It's Time to Rethink College" by Brad Gentry. As you read, underline key ideas and make note of any questions or discussion points. After you finish reading, answer the two questions below the article.

It's Time To Rethink College

Dear Sir,

From a young age I remember being told that I was going to college. None of my immediate family had been to college, but for me, college was not optional, and my parents made sure that I understood that.

As a parent myself, I can understand why my parents pushed the idea of college. They wanted better for me. They wanted me to have every opportunity for success, and they felt college was the best path to get there.

But was it?

The idea that a bachelor's degree immediately equals success is not new. I heard it as a student in the '90s and 2000s, and now as a teacher I still hear it, but is it true?

Daily it seems the news is filled with college graduates who cannot find jobs, working for lower than expected wages unable to pay off their student loans.

Many say the solution is simply to forgive the loan debt, or make college free for everyone, but somehow I feel this misses the point. In today's economy, more education does lead to a better life, but is a four-year college the only path for getting there?

I believe we should rethink college altogether. College no longer has to mean "four-year institution." Tennessee, through the Tennessee Promise

and "Drive to 55" initiatives, has provided an opportunity for students to attend a two-year community college or technical school for free, and in many cases, the skills learned at these institutions lend themselves to success more than some degrees earned at four year colleges. Why? Skills!

Students can attend a community college or a Tennessee College of Applied Technology (TCAT) and learn skills for high-demand careers that require specialized training, and best of all, they can leave with no debt and jobs awaiting them.

Contrast that with the fact that college students have amassed \$1.2 trillion in student loan debt, and, according to Market Watch, that the average college graduate in 2015 is \$35,000 in debt, and it is easy to see why it is time to rethink what "college" means.

I am thankful that my parents valued education and pushed me in that area, and as a parent I plan to do the same thing for my children; however, when my children hear me speak about higher education, they will know that four years of college is not their only option.

Brad Gentry
Instructor
Greene Technology Center
2015-16 Tennessee Educator Fellow

- Published January 20, 2016 in *The Greenville Sun*

Reflection:

- According to Gentry, why is it important to redefine college? How does he define college?
- Choose a statement or idea from the text that you found interesting or wish to share with your partner or group. Why did that idea resonate with you?

Why We're Here

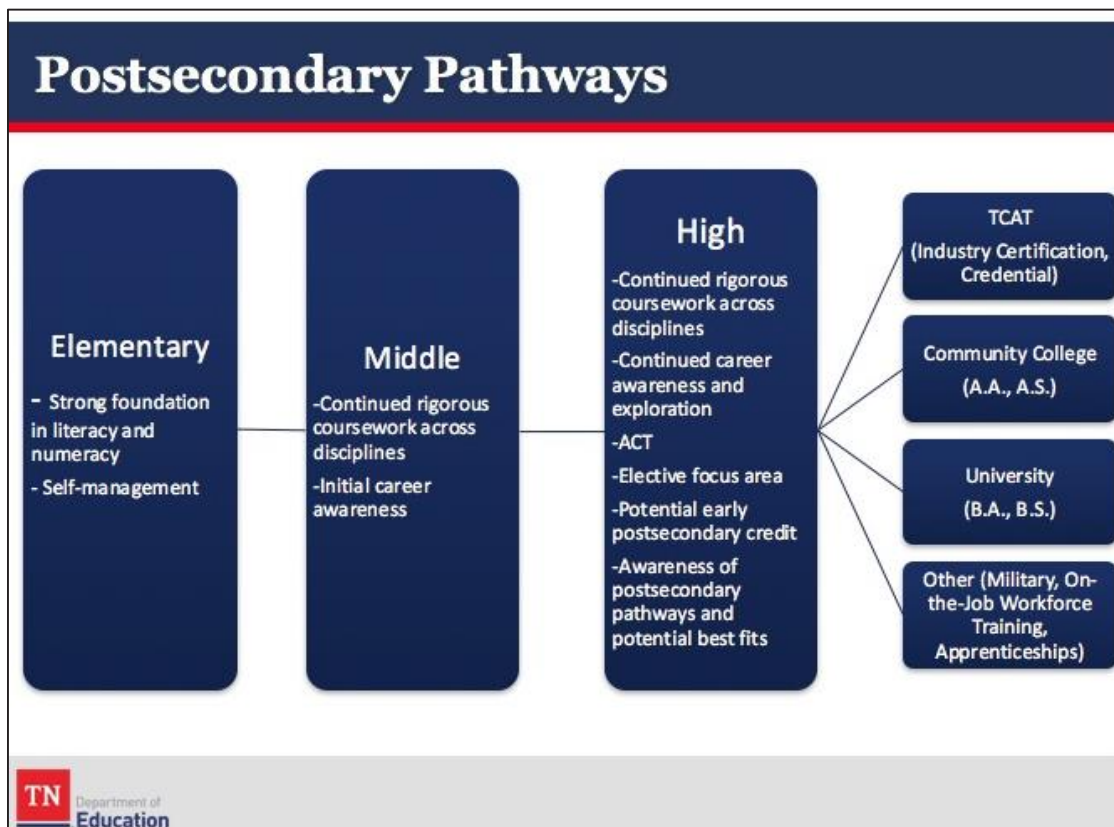
"Districts and schools in Tennessee will exemplify excellence and equity such that all students are equipped with the knowledge and skills to successfully embark upon their chosen path in life."

- Vision Statement from Tennessee Succeeds

Review the three goals and priority areas of our state education strategic plan, *Tennessee Succeeds*, at the beginning of this manual.

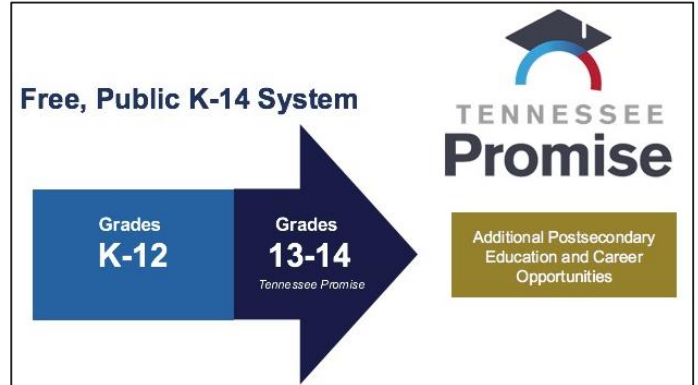
Critical Connections

- All students should have both academic and non-cognitive skills that make them ready for life after high school, regardless of the path they will choose.
- The postsecondary paths that our students choose will not all look the same (four-year, two-year, one-year, military, apprenticeships, etc.).
- It is our job to ensure that students are prepared to be successful in their chosen path.



Tennessee Promise

- More than 80 percent of Tennessee Promise students who went to college in the fall of 2015 returned for their second semester.
- Almost 95 percent of Tennessee Promise students who enrolled at technical colleges returned in the spring.



Key Idea #1



The value of postsecondary education has never been higher, and there are multiple postsecondary **pathways** for students to embark upon. Being ready for postsecondary and the workforce is important for ALL students.

Defining Student Readiness

Case Study 1

Hunter graduated high school in 2015 and immediately enrolled in a state university. He maintained a 3.2 GPA in high school but never took any Advanced Placement (AP) or dual enrollment courses and didn't know of any other early postsecondary opportunities (EPSO). His teachers always described him as respectful and quick to pick up on concepts: he could usually do well on tests without really having to study.

When he took the ACT, he met one out of four college readiness benchmarks (science) and had an ACT composite score of 18. Upon enrolling in college, he took a series of placement tests and did not perform well on them, so he was required to take remedial coursework in English and Math. Based on his K-12 academic success, he was shocked by this. He struggled with study skills and time management: he didn't know how to study effectively and efficiently, and he didn't know how to balance his course load and his work-study job. He eventually passed his remedial courses, but didn't know what major to pick. He had no real exposure in high school to potential career opportunities.

After two semesters, he decided to drop out due to his growing frustration with his academic performance, confusion about what to study, a disillusion with the value of his postsecondary experience, fear about his increasing student loan debt, and an emergent desire to support himself financially. He always had an interest in working with animals, but the only veterinary jobs he was qualified for paid minimum wage.

Discussion:

- Was Hunter ready for postsecondary? Why or why not?
- How could his K-12 schools have better equipped Hunter for a career pathway and successful postsecondary experience?

ACT¹ – Its Purpose

- The ACT is a nationally recognized benchmark assessment for college and career readiness that provides a snapshot of a student's K-12 academic career.
- ACT assesses students' cumulative knowledge from grades K-12 while end-of-year tests, like our state assessments, assess content in specific grades and subjects more deeply.
- By taking the ACT, students gain valuable information on their readiness for postsecondary and the workforce.

ACT Results

- A student's ACT results can be used for the following:
 - Admission to postsecondary education
 - Opportunities for scholarships (e.g., HOPE scholarship, ASPIRE award, etc.)
 - Placement into college courses (e.g., an ACT score can determine whether a student enrolls in remedial courses)
 - Prediction of postsecondary success
 - Progress toward career readiness, including prediction of score on National Career Readiness Certificate and ability to understand complex texts

¹ Per state law §49-6-6001, effective July 1, 2007, districts are required to assess student readiness to enter and succeed in postsecondary of all students in grade 11. Students may choose either the SAT or ACT. Because all districts currently contract with ACT, the following are ACT-focused resources and supports only. For more information about ACT/SAT, please visit the department's website at <http://tn.gov/education/topic/act-sat>.

ACT Benchmarks

ACT college readiness benchmarks are scores on the ACT that represent the level of achievement required for students to have a 50 percent chance of obtaining a B or higher or about a 75 percent chance of obtaining a C or higher in first-year college courses.

College Course	ACT Subject-Area Test	ACT Benchmark Score
English Composition	English	18
College Algebra	Mathematics	22
Social Sciences	Reading	22
Biology	Science	23

- While meeting a benchmark does not guarantee postsecondary degree attainment, there is a strong correlation between meeting ACT benchmarks and postsecondary success.
- ACT's research has indicated that meeting or exceeding the ACT benchmarks **decreased** the likelihood that a student would require remedial coursework in postsecondary and **increased** a student's likelihood of
 - enrolling in college the fall immediately following graduation
 - persisting to the second year, and
 - achieving a 2.0 or higher in postsecondary

Impact of Remedial Coursework on Students

When students are required to take remedial coursework in college, the likelihood that they will complete their postsecondary education:

- Drops from 13.9 percent to 9.5 percent for an associate's degree in 3 years.
- Drops from 22.6 percent to 13.1 percent for a 1-year certificate program in 1.5 years.
- Drops from 55.7 percent to 35.1 percent for a bachelor's degree in 6 years.

- Complete College America, 2011

According to the Tennessee Board of Regents (TBR), a student who was enrolled in remedial development support classes before they could enter into college-level courses at a Tennessee community college had a 12 percent chance of completing a credit-bearing math course and a 31 percent chance of completing a credit-bearing English course.

"What we often find is that the longer it takes to get to credit-bearing courses, the more likely life will get in the way and interrupt their progress toward a degree," said [vice chancellor of Academic Affairs Dr. Tristan] Denley. "Not to mention, many of these students arrive excited about going to college only to be told they aren't really college material. It can be a bit defeating and easily become a self-fulfilling prophecy."

- Tennessee Board of Regents, 2016

Reflection:

- What is the impact of these statistics on our students and on our practice?

Critical Connections

- If we do not equip students to be academically ready for various postsecondary pathways, then they're more likely to need costly remedial coursework that reduces the probability of graduation.

Preparedness vs. Readiness

The National Assessment Governing Board defines preparedness as a subset of readiness:

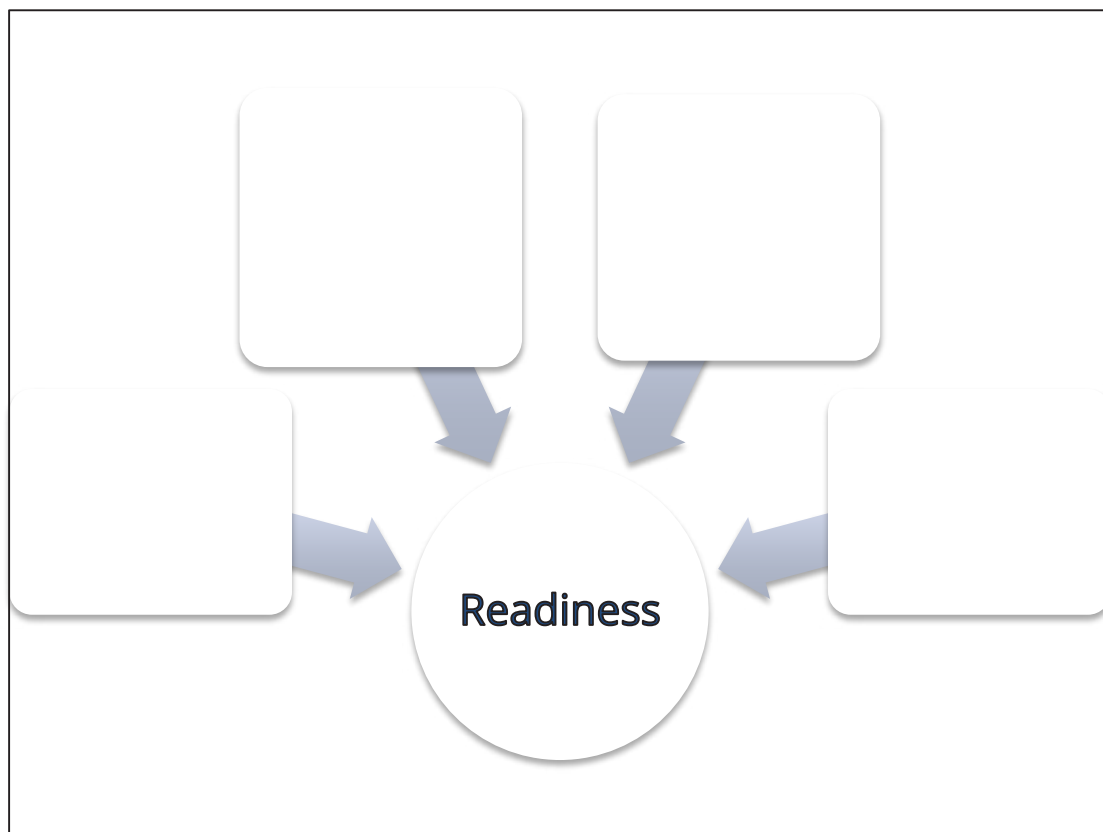
"Preparedness focuses on academic qualifications. Readiness includes behavioral aspects of student performance—time management, persistence, and interpersonal skills."

- Technical Panel on 12th Grade Preparedness Research Final Report, 2009.

- A student can be "prepared" for postsecondary but not "ready."
- Success is more than just academics.

Personalized Vision

Use the graphic below to brainstorm what college readiness means to you. What knowledge, skills, and mindsets go into a student being ready for postsecondary pathways?



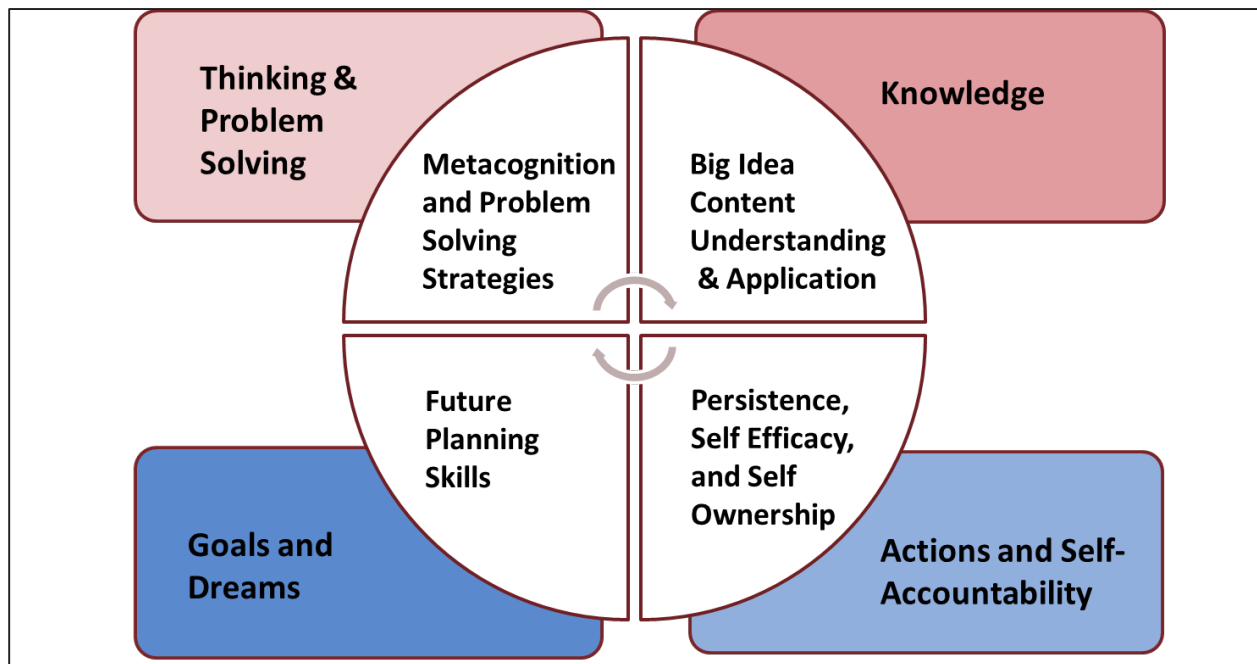
Defining Readiness

- Definition 1
 - “The traditional view of college readiness, which has for many students meant a focus on improved academic performance, may fail to fully capture the developmental processes required for youth to enter, succeed in, and graduate from postsecondary education and training. Increasingly, researchers and policy analysis recognize that the necessary qualities for persistence in and completion of postsecondary education involve more than just academic components” (Hooker and Brand, 2009).
- Definition 2
 - College readiness “can be defined operationally as the level of preparation a student needs to enroll and succeed—without remediation—[...] at a postsecondary institution.” Of “equal importance” as key academic content knowledge “are the attitudes and behavioral attributes that successful college students tend to possess. Among these are study skills, time management, awareness of one’s performance, persistence, and the ability to utilize study groups” (Conley, 2011).

Reflection:

- What elements do Hooker, Brand, and Conley add to a traditional definition of college preparedness to create their definitions of “readiness”? How does this align to your “personalized vision” on the previous page?

The “Ready” Student

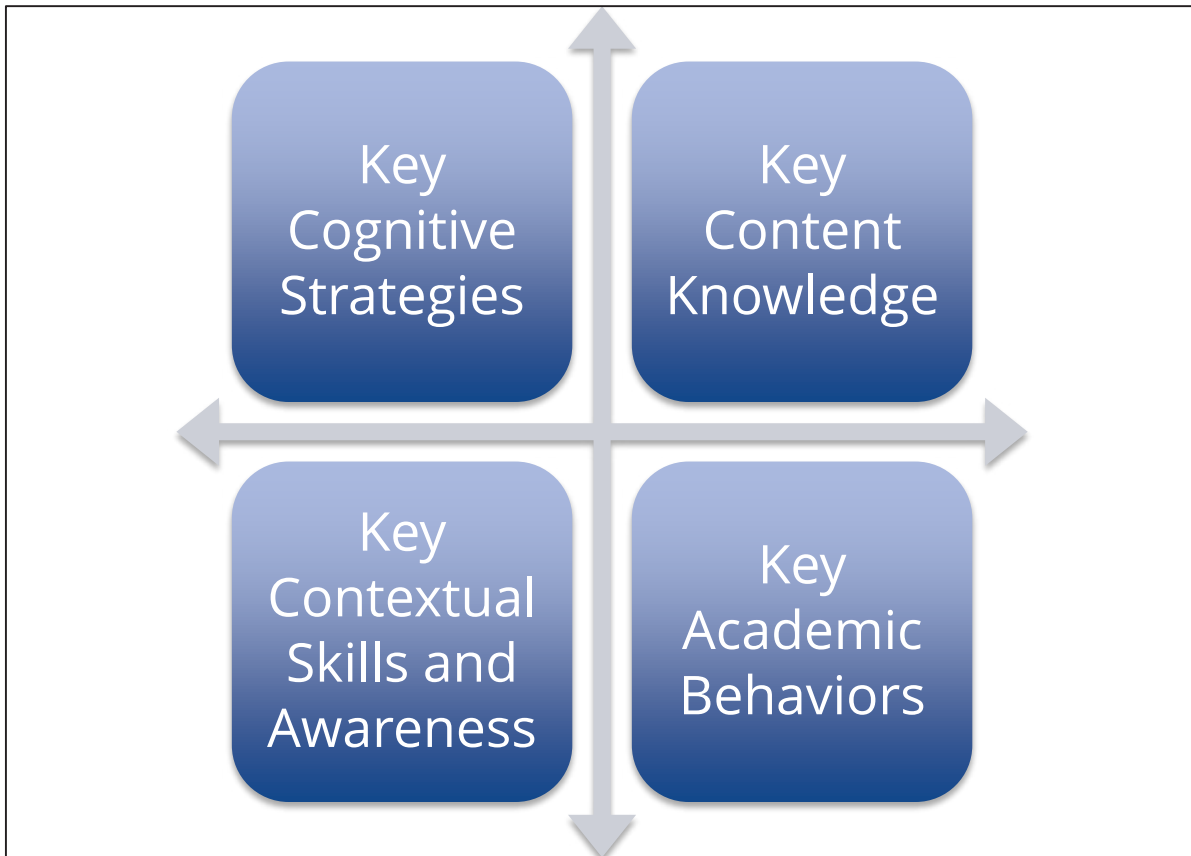


Key Idea #2



Student “**readiness**” for postsecondary and career refers to more than just academic performance.

Conley's Big Four



Jigsaw Activity

- Directions: In groups of four, we will read excerpts from Conley's research. Each group member will read one section (one of the four keys to college readiness).
 - **Key Cognitive Strategies**
 - **Key Content Knowledge**
 - **Key Contextual Skills and Awareness**
 - **Key Academic Behaviors**

- All excerpts are from Conley, D. T. (2007). *Redefining college readiness*. Eugene, OR: Educational Policy Improvement Center.

Key Cognitive Strategies

The term “key cognitive strategies” was selected for this model to describe the intelligent behaviors necessary for college readiness and to emphasize that these behaviors need to be developed over a period of time such that they become ways of thinking, habits in how intellectual activities are pursued. In other words, key cognitive strategies are patterns of intellectual behavior that lead to the development of cognitive strategies and capabilities necessary for college-level work. The term “key cognitive strategies” invokes a more disciplined approach to thinking than terms such as “dispositions” or “thinking skills.” The term indicates intentional and practiced behaviors that become a habitual way of working toward more thoughtful and intelligent action (Costa & Kallick, 2000).

The specific key cognitive strategies include the following as the most important manifestations of this way of thinking:

- ***Intellectual openness:*** The student possesses curiosity and a thirst for deeper understanding, questions the views of others when those views are not logically supported, accepts constructive criticism, and changes personal views if warranted by the evidence. Such open-mindedness helps students understand the ways in which knowledge is constructed, broadens personal perspectives and helps students deal with the novelty and ambiguity often encountered in the study of new subjects and new materials.
- ***Inquisitiveness:*** The student engages in active inquiry and dialogue about subject matter and research questions and seeks evidence to defend arguments, explanations, or lines of reasoning. The student does not simply accept as given any assertion that is presented or conclusion that is reached, but asks why things are so.
- ***Analysis:*** The student identifies and evaluates data, material, and sources for quality of content, validity, credibility, and relevance. The student compares and contrasts sources and findings and generates summaries and explanations of source materials.
- ***Reasoning, argumentation, proof:*** The student constructs well-reasoned arguments or proofs to explain phenomena or issues; utilizes recognized forms of reasoning to construct an argument and defend a point of view or conclusion; accepts critiques of or challenges to assertions; and addresses critiques and challenges by providing a logical explanation or refutation, or by acknowledging the accuracy of the critique or challenge.
- ***Interpretation:*** The student analyzes competing and conflicting descriptions of an event or issue to determine the strengths and flaws in each description and any commonalities among or distinctions between them; synthesizes the results of an analysis of competing or conflicting descriptions of an event or issue or phenomenon into a coherent explanation; states the interpretation that is most likely correct or is

most reasonable, based on the available evidence; and presents orally or in writing an extended description, summary, and evaluation of varied perspectives and conflicting points of view on a topic or issue.

- **Precision and accuracy:** The student knows what type of precision is appropriate to the task and the subject area, is able to increase precision and accuracy through successive approximations generated from a task or process that is repeated, and uses precision appropriately to reach correct conclusions in the context of the task or subject area at hand.
- **Problem solving:** The student develops and applies multiple strategies to solve routine problems, generate strategies to solve non-routine problems, and applies methods of problem solving to complex problems requiring method-based problem solving. These key cognitive strategies are broadly representative of the foundational elements that underlie various “ways of knowing.”

These are at the heart of the intellectual endeavor of the university. They are necessary to discern truth and meaning as well as to pursue them. They are at the heart of how postsecondary faculty members think, and how they think about their subject areas. Without the capability to think in these ways, the entering college student either struggles mightily until these habits begin to develop or misses out on the largest portion of what college has to offer, which is how to think about the world.

Key Content Knowledge

Successful academic preparation for college is grounded in two important dimensions—key cognitive strategies and content knowledge. Understanding and mastering key content knowledge is achieved through the exercise of broader cognitive skills embodied within the key cognitive strategies. With this relationship in mind, it is entirely proper and worthwhile to consider some of the general areas in which students need strong grounding in content that is foundational to the understanding of academic disciplines.

In order to illustrate the academic knowledge and skills necessary for college success, a brief discussion of the key structures, concepts, and knowledge of core academic subjects is presented below. This presentation is not a substitute for a comprehensive listing of essential academic knowledge and skills.

Overarching Academic Skills

- **Writing:** Writing is the means by which students are evaluated at least to some degree in nearly every postsecondary course. Expository, descriptive, and persuasive writing are particularly important types of writing in college. Students are expected to write a lot in college and to do so in relatively short periods of time. Students need to know how to pre-write, how to edit, and how to re-write a piece before it is submitted and, often, after it has been submitted once and feedback has been provided. College writing requires students to present arguments clearly, substantiate each point, and utilize the basics of a style manual when constructing a paper. College-level writing is largely free of grammatical, spelling, and usage errors.
- **Research:** College courses increasingly require students to be able to identify and utilize appropriate strategies and methodologies to explore and answer problems and to conduct research on a range of questions. To do so, students must be able to evaluate the appropriateness of a variety of source material and then synthesize and incorporate the material into a paper or report. They must also be able to access a variety of types of information from a range of locations, formats, and source environments.

Core Academic Subjects Knowledge and Skills

- **English:** The knowledge and skills developed in entry-level English courses enable students to engage texts critically and create well-written, organized, and supported work products in both oral and written formats. The foundations of English include reading comprehension and literature, writing and editing, information gathering, and

analysis, critiques and connections. To be ready to succeed in such courses, students need to build vocabulary and word analysis skills, including roots and derivations. These are the building blocks of advanced literacy. Similarly, students need to utilize techniques such as strategic reading that will help them read and understand a wide range of nonfiction and technical texts. Knowing how to slow down to understand key points, when to re-read a passage, and how to underline key terms and concepts strategically so that only the most important points are highlighted are examples of strategies that aid comprehension and retention of key content.

- **Math:** Most important for success in college math is a thorough understanding of the basic concepts, principles, and techniques of algebra. This is different than simply having been exposed to these ideas. Much of the subsequent mathematics they will encounter will draw upon or utilize these principles. In addition, having learned these elements of mathematical thinking at a deep level, they understand what it means to understand mathematical concepts deeply and are more likely to do so in subsequent areas of mathematical study. College-ready students possess more than a formulaic understanding of mathematics. They have the ability to apply conceptual understandings in order to extract a problem from a context, use mathematics to solve the problem, and then interpret the solution back into the context. They know when and how to estimate to determine the reasonableness of answers and can use a calculator appropriately as a tool, not a crutch.
- **Science:** College science courses emphasize scientific thinking in all their facets. In addition to utilizing all the steps in the scientific method, students learn what it means to think like a scientist. This includes the communication conventions followed by scientists, the way that empirical evidence is used to draw conclusions, and how such conclusions are then subject to challenge and interpretation. Students come to appreciate that scientific knowledge is both constant and changing at any given moment, and that the evolution of scientific knowledge does not mean that previous knowledge was necessarily “wrong.” Students grasp that scientists think in terms of models and systems as ways to comprehend complex phenomena. This helps them make sense out of the how of ideas and concepts they encounter in entry-level college courses and the overall structure of the scientific discipline they are studying. In their science courses, students master core concepts, principles, laws, and vocabulary of the scientific discipline being studied. Laboratory settings are the environments where content knowledge and scientific key cognitive strategies converge to help students think scientifically and integrate learned content knowledge.

- **Social Studies:** The social sciences entail a range of subject areas, each with its own content base and analytic techniques and conventions. The courses an entry-level college student most typically takes are in geography, political science, economics, psychology, sociology, history, and the humanities. The scientific methods that are common across the social studies emphasize the skills of interpreting sources, evaluating evidence and competing claims, and understanding themes and the overall how of events within larger frameworks or organizing structures. Helping students to be aware that the social sciences consist of certain “big ideas” (theories and concepts) that are used to order and structure all of the detail that often overwhelms them can help build mental scaffolds that lead toward thinking like a social scientist.
- **World Languages:** The goal of second language study is to communicate effectively with and receive communication from speakers of another language in authentic cultural contexts through the skills of listening, speaking, reading, and writing. Learning another language involves much more than memorizing a system of grammatical rules. It requires the learner to understand the cultures from which the language arises and in which it resides, use the language to communicate accurately, and use the learner’s first language and culture as a model for comparison with the language and culture being learned. Second language proficiency can improve learning in other disciplines, such as English, history and art, and expand professional, personal, and social opportunities. Language learners need to understand the structure and conventions of a language, but not through word-for-word translation or memorization of de-contextualized grammatical rules. Instead, students of a language need to master meaning in more holistic ways and in context.
- **The Arts:** The arts refer to college subject areas including art history, dance, music, theater, and visual arts. Students ready for college-level work in the arts possess an understanding of and appreciation for the contributions made by the most innovative creators in the field. Students come to understand themselves as instruments of communication and expression who demonstrate mastery of basic oral and physical expression through sound, movement, and visual representations. They understand the role of the arts as an instrument of social and political expression. They formulate and present difficult questions through their personal artistic visions. They are able to justify their aesthetic decisions when creating or performing a piece of work and know how to make decisions regarding the proper venue for performing or exhibiting any creative product.

Key Contextual Skills and Awareness

The importance of this broad category has only recently been highlighted as an ever-wider range of students apply to college. Contextual factors encompass primarily the privileged information necessary to understand how college operates as a system and culture. It is this lack of understanding of the context of college that causes many students to become alienated, frustrated, and even humiliated during the freshman year and decide that college is not the place for them. Examples of key context skills and awareness include a systemic understanding of the postsecondary educational system combined with specific knowledge of the norms, values, and conventions of interactions in the college context, and the human relations skills necessary to cope within this system even if it is very different from the community the student has just left.

This does not necessarily mean that students need to disown their cultural backgrounds, heritage, and traditions, only that they need to understand the relationship between their cultural assumptions and those operating in college. Success in college is enhanced for students who possess interpersonal and social skills that enable them to interact with a diverse cross-section of academicians and peers. These skills include the ability to collaborate and work in a team; understand the norms of the “academic” culture and how one interacts with professors and others in that environment; interact with people from different backgrounds and cultures; communicate informally; and demonstrate leadership skills in a variety of settings.

Another important area of contextual awareness is known as “college knowledge.” This is information, formal and informal, stated and unstated, necessary for both gaining admission to and navigating within the postsecondary system. College knowledge includes an understanding of the following processes: college admissions including curricular, testing, and application requirements; college options and choices, including the tiered nature of postsecondary education; tuition costs and the financial aid system; placement requirements, testing, and standards; the culture of college; and the challenge level of college courses, including increasing expectations of higher education (Lundell et al., 2004).

Admissions requirements, and timelines in particular, are extremely complicated, and students often do not know or understand the importance of either until it is too late. Specific institutions have additional special requirements and exceptions that are not immediately evident. Financial aid options are largely unknown or substantially misunderstood by many students most in need of such support. The economically well-off are more likely to have this knowledge than working-class families or families whose children are the first generation to attend college (Conley, 2005; Robbins et al., 2004; Venezia et al., 2004)

Key Academic Behaviors

This facet of college readiness encompasses a range of behaviors that reflect greater student self-awareness, self-monitoring, and self-control of a series of processes and behaviors necessary for academic success. These are distinguished from key cognitive strategies by the fact that they tend to be more completely independent of a particular content area, whereas the key cognitive strategies are always developed within the ways of knowing a particular content area. The key academic behaviors consist largely of self-monitoring skills and study skills.

Self-monitoring is a form of metacognition, the ability to think about how one is thinking. Examples of metacognitive skills include: awareness of one's current level of mastery and understanding of a subject, including key misunderstandings and blind spots; the ability to reflect on what worked and what needed improvement in any particular academic task; the tendency to persist when presented with a novel, difficult, or ambiguous task; the tendency to identify and systematically select among and employ a range of learning strategies; and the capability to transfer learning and strategies from familiar settings and situations to new ones (Bransford et al , 2000). Research on the thinking of effective learners has shown that these individuals tend to monitor actively, regulate, evaluate, and direct their own thinking (Ritchhart, 2002).

Another important area of college readiness is student mastery of the study skills necessary for college success. The underlying premise is simple: academic success requires the mastery of key skills necessary to comprehend material and complete academic tasks successfully, and the nature of college learning in particular requires that significant amounts of time be devoted to learning outside of class for success to be achieved in class. Study skills encompass a range of active learning strategies that go far beyond reading the text and answering the homework questions. Typical study- skill behaviors include time management, preparing for and taking examinations, using information resources, taking class notes, and communicating with teachers and advisors (Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004). An additional critical set of study skills is the ability to participate successfully in a study group and recognize the critical importance of study groups to success in specific subjects. Examples of specific time management techniques and habits include: accurately estimating how much time it takes to complete all outstanding and anticipated tasks and allocating sufficient time to complete the tasks; using calendars and creating "to do" lists to organize studying into productive chunks of time; locating and utilizing settings conducive to proper study; and prioritizing study time in relation to competing demands such as work and socializing.

Jigsaw Graphic Organizer

Use the table below to record your key takeaways.

<p>Key Cognitive Strategies</p>	<p>Key Content Knowledge</p>
<p>Key Contextual Skills and Awareness</p>	<p>Key Academic Behaviors</p>

Case Study 2

Stephanie went to a middle school that took its students on college tours every year. In the seventh grade, Stephanie took a Career Interest Survey that helped her get a sense of potential postsecondary pathways. When she went to high school, she learned that she was expected to participate in an internship, job, educational experience (e.g., a camp on a college campus), or volunteer experience over the summer, and teachers would serve as advisors to help them through applying to these experiences. Stephanie told her advisor that she is interested in business, so her teacher encouraged her to apply for a summer camp for high school students at the University of Tennessee at Knoxville called the Empowered Teen Entrepreneurship Camp. Stephanie initially struggled with the application process, but persisted after her teacher helped map out how she would spend her time to get all of the required components of the application submitted.

Stephanie liked the camp, but after taking a few STEM courses at her high school the next year, her interests changed. She was now interested in engineering and computer science, and her teachers helped her apply to a few STEM-related experiences over the next few years.

On a predictive ACT assessment in the tenth grade, she scored an 18, but after a few interim ACT assessments that the school decided to implement, she was able to score a 21 on the ACT her junior year, qualifying her for the Tennessee Hope Scholarship. When she was a senior, she took a course called Senior Seminar, offered by the college counselors. This class focuses on helping students through the postsecondary application process: everything from finding schools that could be good fits for the students (socially, financially, and academically), to the application process, to filling out the FAFSA, to making their college decisions. The postsecondary applications process was daunting for Stephanie, but she felt confident because she had applied to so many summer experiences before. She wasn't accepted to her top college, but she was accepted to a college that was aligned to her career goals and was a good fit for her academically, financially, and socially.

Stephanie initially struggled with managing her time between classes and her work-study program, but she still used an agenda like she did in high school, which helped her gradually adjust to the demands of college life.

Initially, Stephanie underestimated the amount of time required for her to complete the reading for her classes. But throughout the semester, she started spending more time outlining as she read and reread difficult texts (she remembered her tenth grade English teacher who had students reread the same passage multiple times throughout the course of a lesson and week). She excelled in her introductory Chemistry class, especially on lab reports. Her science

teachers in high school never let her use “it” in a response, always insisting on using the correct science vocabulary. She finished her first semester with three B’s and one A.

Discussion:

- Was Stephanie ready for postsecondary? Why or why not?

In each of the four boxes below, write down ways in which Stephanie’s schools and teachers helped her build each of Conley’s four keys.

<p>Key Cognitive Strategies</p>	<p>Key Content Knowledge</p>
<p>Key Contextual Skills and Awareness</p>	<p>Key Academic Behaviors</p>

Strategy Analysis Activity

Strategy	How does this strategy build key cognitive strategies, key content knowledge, key contextual skills and self-awareness, and key academic behaviors?
<i>Example Strategy: A school decides to provide day planners to students and monitors their students' use of them.</i>	<i>Example Response: This strategy could help teach students key academic behaviors, like managing time well.</i>
Strategy 1: After each major assessment, teachers have students reflect on their performance. Students explain how they prepared for the assessment, if they are on track for mastery on the assessment's key skills, and what they will do next time based on their performance.	
Strategy 2: A school decides to host a required FAFSA workshop for students' families and requires a family member to meet with college counselors throughout the year to collaborate with them regarding their student's postsecondary pathway.	
Strategy 3: A school decides to review student work together in departments each quarter to see if their students were on track to being "college ready" in their specific subject.	
Strategy 4: A teacher revamps her class's long-term plan to include relevant ACT college readiness standards. She includes at least two ACT sample questions on weekly quizzes. She also starts making it mandatory for her students to keep an organized binder and agenda for her class, and she checks students' binders and agendas once a week to ensure that students are using them optimally.	

<p>Strategy 5: A school decides to post seniors' acceptance letters prominently so that other students were aware of their peers' success. The school is strategic in making sure that a variety of postsecondary pathways are being celebrated. Every morning on the announcements, a student's acceptance is highlighted and there are often announcements about important upcoming dates, like ACT testing and Tennessee Promise deadlines.</p>	
<p>New Strategy:</p>	
<p>New Strategy:</p>	
<p>New Strategy:</p>	



Key Idea #3



Schools and educators can take strategic **instructional** steps to build students' readiness for postsecondary and career.

Personal Action Plan
TAB

Personal Action Plan

Throughout the training, we will add to this document so that you can have a personalized action plan based on what you learn in each module.

Classroom-Based Ideas	School-Based Ideas
Individual Student-Based Ideas	Other Ideas

Closing Reflection:

- What are your most important takeaways about each key idea from today? How can you apply the Key Ideas to your current role in your school?

Key Idea	Your Takeaways
Key Idea #1 The value of postsecondary education has never been higher, and there are multiple postsecondary pathways for students to embark upon. Being ready for postsecondary and the workforce is important for ALL students.	
Key Idea #2 Student “ readiness ” for postsecondary and career refers to more than just academic performance.	
Key Idea #3 Schools and educators can take strategic instructional steps to build students’ readiness for postsecondary and career.	

Module 2:
How the ACT Measures Student
Readiness
[TAB PAGE]

Module 2: How the ACT Measures Student Readiness

Objectives

- Articulate defining characteristics about the ACT assessment, including its format, subject-area components, readiness benchmarks, research-base, and score reporting
- Examine the knowledge and skills students need to be successful on both the ACT and state assessments
- Create personal action steps to ensure student readiness and success on the ACT by reflecting on current instructional practices and personal mindset

Rationale: Call to Action

“The Condition of College & Career Readiness 2015 points to the need for federal, state, and local policymakers and agency heads to support the **readiness of all students for college and career**. Over the last several years, the average national ACT Composite score and ACT College Readiness Benchmark attainment of students taking the ACT has remained relatively constant. Because the current direction and aim of our education system is to **prepare all students for postsecondary and career success**, this year’s results continue to signal the need for increased wholesale systemic supports and reforms”.

- Retrieved from www.act.org/readiness/2015 (The Condition of College & Career Readiness Report, 2015.)

In Tennessee

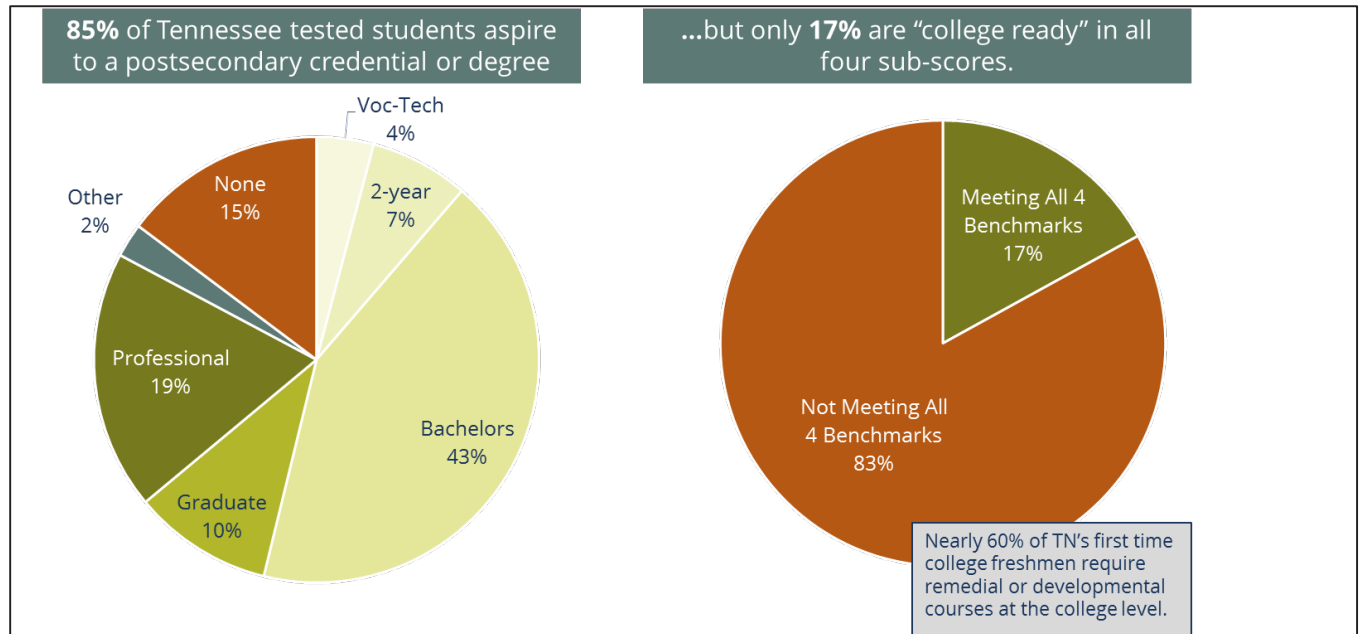
- An estimated 83 percent of the 2015 graduating class (60,405 students) were tested
 - 51 percent of students scored 19 or higher
 - 20 percent scored 19-21
 - 31 percent scored above 21

Tennessee Success

ACT data is at an all-time high! Tennessee reached 19.4 as the average composite in 2015. ACT recognized the state for an increase of 0.3 in 2014 raising the score for 19 to 19.3 in one year. The current state goal is to reach 21 by 2020 and prepare more students for postsecondary completion. This score is the cut mark for the Tennessee HOPE scholarship and represents the 50th percentile of national ACT data, representative of both postsecondary and career preparation.

State Postsecondary Challenges

- In 2015, 85 percent of high school graduates aspired to postsecondary degree (*ACT State Report*).
- However, only 17 percent were college ready in all 4 subjects.
- Almost 60 percent of first-time freshmen in Tennessee took at least one remedial or developmental course (*Tennessee Succeeds*).



Reflection:

Independently reflect on the data for "Aspiration vs Reality" in Tennessee.

- Which statistic is most startling or compelling to you? Why?
- How can we best eliminate the gap between students' aspiration and readiness?

Characteristics of the ACT

ACT – Its Purpose

- The ACT is a nationally recognized benchmark assessment for college and career readiness that provides a snapshot of a student's K-12 academic career.
- ACT assesses students' cumulative knowledge from grades K-12.
- By taking the ACT, students gain valuable information on their readiness for postsecondary and the workforce.

ACT – Test and Overview

Get to know the test:

- The ACT® test contains four multiple-choice tests: English, mathematics, reading, and science.
- The ACT with writing includes the four multiple-choice tests and a writing test.

Subject	Number of Questions	Length in Minutes	What does it measure?
English	75	45	Standard written English and rhetorical skills
Mathematics	60	60	Mathematical skills students have typically acquired in courses taken up to the beginning of grade 12
Reading	40	35	Reading comprehension
Science	40	35	Interpretation, analysis, evaluation, reasoning and problem-solving skills required in the natural sciences
Optional Writing Portion	1 prompt	40	Writing skills emphasized in high school English classes and in entry-level college composition courses

Exercise: Score Report

- Directions: Independently review the sample ACT student score report on the following two pages and identify data facts that you feel are important. Think about teacher actions you would take and answer the reflection questions below.
- When done, discuss your findings in your group. Record results on chart paper.

The ACT[®] Student Report

ACT, Inc.—Confidential Restricted when data present

Ann C Taylor (ACT ID: -54116290)

Wheat Ridge Sr High School (061-450) | Apr 2016 National






Composite Score

21

U.S. Rank 56%

State Rank 58%

Test Results

	Score	U.S. Rank	Scores in Relation to Benchmarks
English	24	74%	
Usage/Mechanics	12	72%	
Rhetorical Skills	12	71%	
Mathematics	19	47%	
Pre-Algebra/Elem. Algebra	11	57%	
Algebra/Coord. Geometry	10	51%	
Plane Geometry/Trig.	09	39%	
Reading	23	66%	
Social Studies/Sciences	12	67%	
Arts/Literature	11	58%	
Science	18	32%	
Writing	25	79%	
Ideas and Analysis	10		
Development and Support	08		
Organization	07		
Language Use and Conventions	08		

Composite and Subscores: ACT test scores and the Composite score range from 1 to 36; subscores range from 1 to 18. Your Composite score is the average of your scores on the four subject tests. Subscores do not necessarily add up to your score for a subject test.

ACT College Readiness Benchmarks: If your scores are at or above the ACT benchmark scores, you will likely be ready for first-year college courses.

U.S. Rank and State Rank: Your ranks tell you the approximate percentages of recent high school graduates in the U.S. and your state who took the ACT and received scores that are the same as or lower than yours.

Interpreting Your Scores: Test scores are not precise measures of your educational development. ACT scores reported are the midpoint of a score range that represents your educational development at the time you took the ACT. For example, the score range is plus or minus one point for the Composite score. You will find more information about interpreting your scores in the *Using Your ACT Results* booklet provided with this report and at www.actstudent.org.

Writing: The score ranges from 1 to 36. Writing domain scores range from 2 to 12. Domain scores do not necessarily add up to your score for the Writing test.

ELA 24 70%

STEM 19 40%

Understanding Complex Texts
Proficient

Progress Toward Career Readiness
You are making progress toward a Gold level on the ACT NCRC.



English Language Arts (ELA): An average of your English, Reading, and Writing scores. The score ranges from 1 to 36.

Science, Technology, Engineering, and Mathematics (STEM): An average of your Math and Science scores. The score ranges from 1 to 36.

Understanding Complex Texts: Measures level of proficiency on a subset of items in the Reading test assessing the ability to identify the central meaning and purposes for a range of increasingly complex texts.

Progress Toward Career Readiness: Based on your ACT Composite score, Progress Toward Career Readiness is an indicator of your potential level of achievement on the ACT National Career Readiness Certificate (ACT NCRC). The ACT NCRC is an assessment-based credential that certifies skills critical to your future education and career success.

Learn how NCRC performance relates to job skill requirements at www.act.org/workkeys/briefs/files/NCRCRequirements.pdf.

This information is not to be considered a substitute for actual performance on the ACT NCRC.

Your College Reports

At your direction, your scores from this test date are being reported to the colleges shown below. College planning information is provided for the first four choices you listed when you registered or tested. Check with colleges for recent changes in information. Note: Your GPA was calculated from the grades you reported.

College Name (Code)	Profile of Enrolled 1st-Year Students			Preferred Program of Study Availability	Approximate Annual Tuition and Fees		Percentage of 1st-Year Students Receiving Financial Aid	
	ACT Composite Score	High School Class Rank	High School GPA		In-state	Out-of-state	Need-based	Merit-based
University of Omega (9521) Omega, CO www.universityofomega.edu	Middle 50% between 18–24	Majority in top 50%	2.76	4-Yr Degree	\$5,600	\$12,000	67%	20%
Alpha University (9059) University Center, IA www.alpha.edu	Middle 50% between 21–26	Majority in top 25%	3.12	4-Yr Degree	\$9,000*	\$15,000*	85%	27%
Beta Community College (8866) Clarkston, CO www.betaacc.edu	Middle 50% between 16–21	Majority in top 75%	2.49	Program Available	\$4,000	\$4,000	58%	18%
Magna College (8905) Plainview, OH www.magna.edu	Middle 50% between 21–26	Majority in top 50%	2.71	4-Yr Degree	\$8,500	\$14,000	90%	35%
Student Information	Composite Score 21	Class Rank Top 25%	Calculated GPA 3.29	Selected Major Accounting				

College and Career Planning

Many people consider several possibilities before making definite career plans. Before you took the ACT, you had the opportunity to respond to questions about your educational and career plans. Use this information to consider possibilities that you may like to explore.

Interest Inventory Results

YOUR RESULTS INDICATE A PREFERENCE FOR WORKING WITH PEOPLE AND DATA.

SEE MAP REGIONS 2, 3, 4

THE SHADED REGIONS SHOW CAREER AREAS HAVING WORK TASKS YOU PREFER.

RELATED CAREER AREAS:

COMMUNICATIONS & RECORDS
EMPLOYMENT-RELATED SERVICES
FINANCIAL TRANSACTIONS
MANAGEMENT
MARKETING & SALES
REGULATION & PROTECTIONS

College Major Selected

ACCOUNTING

THIS MAJOR PRIMARILY INVOLVES WORKING WITH DATA AND THINGS.

RELATED MAJORS:

BANKING & FINANCIAL SUPPORT SERVICES
BUSINESS ADMINISTRATION & MGMT, GEN
FINANCE, GENERAL
FINANCIAL PLANNING & SERVICES
INSURANCE & RISK MANAGEMENT
INVESTMENTS & SECURITIES
PURCHASING/PROCUREMENT/CONTRACTS MGMT
SMALL BUSINESS MANAGEMENT/OPERATIONS

Occupational Field Selected

INSURANCE & RISK MANAGEMENT

SEE MAP REGION 2

THE OCCUPATIONAL FIELD YOU CHOSE IS IN CAREER AREA C: MANAGEMENT

RELATED OCCUPATIONS:

ASSOCIATION EXECUTIVE
FINANCIAL MANAGER
FOREIGN SERVICE OFFICER
GENERAL MANAGER/TOP EXECUTIVE
HOTEL/MOTEL MANAGER
MANAGEMENT CONSULTANT
PROPERTY/REAL ESTATE MANAGER

The World-of-Work Map

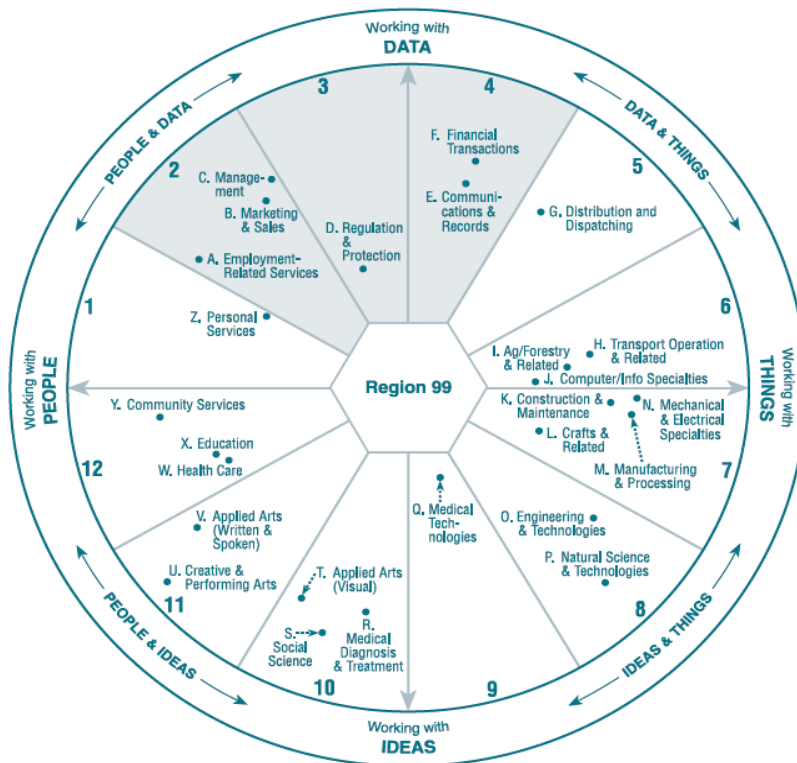
(Your Interest Inventory results are shaded.)*

Four Basic Work Tasks: All college majors and occupations differ in how much they involve working with four basic work tasks: working with **People** (care, services), **Things** (machines, materials), **Data** (facts, records), and **Ideas** (theories, insights). These four basic work tasks are the compass points on the World-of-Work Map.

Regions and Career Areas: The map is divided into 12 regions, each with a different mix of work tasks. The map shows the locations of 26 occupational fields, called Career Areas (A–Z). Each Career Area contains many occupations that share similar work tasks.

*If no regions are shaded, you did not answer enough interest items to permit scoring.

For more information about your college and career planning, visit www.actstudent.org or check the booklet provided with this report.



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Reflection – Score Report:

- What are some conclusions you can draw based on the data presented in the score report?
- What does the report say about the student? What readiness measures stand out?
- What implications exist for the student's teachers?
- Thinking back to Case Study 2 about Stephanie in Module 1, how does having access to the student report improve teacher actions or practices for the student?

ACT Subject Area Components

Directions:

Use the chart below to capture your key takeaways and new information you are learning about the ACT over the course of the next section of the module. At the end, you will be given reflection time to share your key insights with your group.

ACT-Subject Area Recording Sheet			
Subject Area	Key Takeaways & New Information	Important Content & Test Prep Considerations	Percent of TN Students Meeting Benchmark
English			
Math			
Reading			
Science			

Readiness Benchmark	Percent of 2015 ACT-Testing High School Graduates meeting benchmark	
	Tennessee	Nation
English	54	64
Math	30	42
Reading	35	46
Science	29	38

English Subject Area Exam

Why English Matters

- The English sub-test is important because it gives us information on how well a student can use the conventions of language, organize ideas, and choose words and sentence elements to develop a given topic.
- A study from the National Commission on Writing says that two-thirds of salaried workers have jobs that require extensive writing.
(*Report of the National Commission on Writing for America's Families, Schools, and Colleges, College Board*)
- Communication matters in EVERY job no matter the level or industry, and the skills your students graduate with will affect their employability for the rest of their lives.

English Practice Test Questions

DIRECTIONS: Turn to page 12 in the Preparing for the ACT Test booklet. Answer the first five questions. An answer sheet is provided on page 68. You may also use the text box to record your answers below.

Answers:

- 1.
- 2.
- 3.
- 4.
- 5.

Quick Reflection:

- Any key takeaways?
- What was exciting?
- What was challenging?
- Based on the sample questions you have completed, what are your initial thoughts about implications for your instruction?
- What changes might you make to instruction to support your students on this sub-test?

English Test Structure

- 75 questions in 45 minutes
- Questions are based on five passages
- Students have about nine minutes for each passage and corresponding questions
- Content is broken down into usage/mechanics (about 55 percent) and rhetorical skills (about 45 percent)

English Test Design

	Category	Questions in this Category Test:
Usage/Mechanics	Punctuation (10-15 percent)	Conventions of internal and end-of-sentence punctuation, with emphasis on the relationship of punctuation to meaning (e.g., avoiding ambiguity, including appositives)
	Grammar and Usage (15-20 percent)	Agreement between subject and verb, between pronoun antecedent, and between modifiers and the word modified; verb formation, pronoun case; formation of comparative and superlative adjectives and adverbs; idiomatic usage
	Sentence Structure (20-25 percent)	Relationships between and among clauses, placement of modifiers, and shifts in construction
Rhetorical Skills	Strategy (15-20 percent)	How well students develop a given topic by choosing expressions appropriate to an essay's audience and purpose; judging the effects of adding, revising, or deleting supporting material; judging the relevance of statements in context
	Organization (10-15 percent)	How well students organize ideas and choose effective opening, transitional, and closing sentences
	Style (15-20 percent)	How well students choose precise and appropriate words and images, maintain the level of style and tone in an essay, manage sentence elements for rhetorical effectiveness, and avoid ambiguous pronoun references, wordiness and redundancy

English Standards Connections

- All of the usage/mechanics skills tested by the ACT are covered in Tennessee state standards.
- The rhetorical skills assessed on the ACT are covered in our standards expectations of reviewing, editing, and revising students' written work.
- Many English teachers (particularly at higher grade levels) may not be offering explicit instruction in rhetorical skills, as these are introduced in earlier grades. These skills should continue to be taught and practiced, especially as they are applied to increasingly sophisticated and complex writing and speaking.

For more information on connections between the ACT Standards and Tennessee State Standards in English, please read pages 9-14 in the "ACT Connections" document found online at:

https://gallery.mailchimp.com/b28b453ee164f9a2e2b5057e1/files/ACT_Connections_2_3_16.pdf

English Readiness Characteristics

The English section measures readiness because:

- The speed of the section demands problem solving and critical thinking skills.
- Rhetorical skills are important to oral and written communications in the workforce.
- Score on this section is predictive of success in the introductory English Composition course required by both Tennessee community colleges and universities.

This section is important for students' futures:

- Required course for liberal arts and sciences fields.
- Employers consistently mention importance of communication skills.

English Test Tips

- ACT assesses understanding of standard conventions of English.
 - In casual conversation, emails, or other informal communication we often use slang that is not correct in standard written English.
- Usage/Mechanics questions often refer to an underlined portion of the passage.
 - Students can save time by going to the questions first, and then referring back to the passage when needed.
 - It is often important, however, to read the sentence before and/or after the underlined portion to determine the meaning and the best answer choice.
- The style of the writing used in each of the five passages is important. Passages are written in a variety of styles and some questions will ask for the best answer based on the style as a whole.
- Students should reread the sentence substituting the answer they have selected in the passage context as a way of checking their work.

Department of
Education

- Based on the sample questions you have completed, the design and structure of the test, and the readiness characteristics and test-taking tips we discussed, what are the implications for your instruction?
- What changes might you make to your daily instruction to support your students' improvement on the ACT English sub-test?

You can add changes you want to make to your daily instruction to your action plan in Module 1.

Math Subject Area Exam

Why Math Matters

- The mathematics sub-test is important because it gives us information on how well a student can use computation and problem solving skills needed to be successful in typical entry-level jobs and introductory college algebra courses.
- Employers typically request students with basic numeracy skills that can be quickly applied in context, not for students who have memorized complex theories or formulas.

Math Practice Test Questions

DIRECTIONS: Turn to page 24 in the Preparing for the ACT Test booklet. Answer the first six questions. An answer sheet is provided on page 68. You may also use the text box to record your answers below.

Answers:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Quick Reflection:

- What are your key takeaways from these questions?
- What was exciting?
- What was challenging?
- Based on the sample questions you have completed, what are your initial thoughts about implications for your instruction?
- What changes might you make to instruction to support your students on this sub-test?

Math Test Structure

- Students have about one minute for each multiple-choice question (60 questions, 60 minutes)
- Some questions may belong to a set of several questions (e.g., several questions about the same graph or chart)
- Knowledge of basic formulas and computational skills are assumed as background, but recall of complex formulas and extensive computation is not required
- Students may use a calculator on the entire mathematics test.

Math Test Design

In the mathematics test, three sub-scores are based on six content areas, which range from Grade 3 to Pre-Calculus.

- Pre-Algebra / Elementary Algebra
 - Pre-Algebra (20-25 percent)
 - Elementary Algebra (15-20 percent)
- Intermediate Algebra / Coordinate Geometry
 - Intermediate Algebra (15-20 percent)
 - Coordinate Geometry (15-20 percent)
- Plane Geometry/Trigonometry
 - Plane Geometry (20-25 percent)
 - Trigonometry (5-10 percent)

Math Standards Connections

- All of the ACT standards in mathematics, with the exception of five standards, are covered in Tennessee state standards K-11 in the same domain areas.
 - Missing standards are around matrices, can be calculated easily with a calculator, and can be quickly covered in ACT-prep activities
- The majority of skills students need to hit the readiness benchmark score are found in standards grades 2-9.
- The chart below shows the overlap of the ACT math domains with the Tennessee State Standards math domains

K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	High School
Geometry →									Geometry
			ACT Readiness Domain: Geometry						
Measurement & Data →						Statistics & Probability →		Statistics & Probability	
						ACT Readiness Domain: Statistics & Probability			
Number & Operations in Base Ten →						The Number System →		Number & Quantity	
		ACT Readiness Domain: Number and Quantity							
Operations in Algebraic Thinking →						Expressions & Equations →		Algebra	
				ACT Readiness Domain: Algebra					
Counting & Cardinality			Numbers & Operations—Fractions →			Ratios & Proportional Relationships →		Functions →	Functions
				ACT Readiness Domain: Functions					

For more information on connections between the ACT Standards and Tennessee -State Standards in Math, please read pages 17-19 in the “ACT Connections” document found online at:

https://gallery.mailchimp.com/b28b453ee164f9a2e2b5057e1/files/ACT_Connections_2_3_16.pdf

Math Readiness Characteristics

The Math Section measures readiness because:

- The speed of the section demands problem solving and critical thinking skills.
- Ability to appropriately use references (such as choosing appropriate common formula and compute on a calculator) is similar to how students are required to solve problems in the workplace.
- Score on this section is predictive of success in the introductory math courses required by both Tennessee community colleges and universities.

This section is important for students' futures:

- College Algebra is a common introductory math course, and algebra-based calculus is required for STEM fields.
- Employers consistently mention importance of basic numeracy and problem solving, in context.

Math Test Tips

- Calculators are allowed, but are not necessary.
 - There is a list of approved calculators. All calculators are not accepted.
- Because the test is multiple choice, the correct answer is always among the answer choices. For some problems, it is possible to check your answer or test all options.
- Because of the speed of this section, students should answer easier questions first, going back to more difficult ones if they have time. Showing their work can help.
- There is no penalty for wrong answers – attempt or guess on all questions!
- Students should memorize and fluently be able to use common formulas and concepts (Pythagorean Theorem, area, volume, slope, mean, etc.)

Department of
Education

- Based on the sample questions you have completed, the design and structure of the test, and the readiness characteristics and test-taking tips we discussed, what are the implications for your instruction?
- What changes might you make to your daily instruction to support your students' improvement on the ACT Math sub-test?

You can add changes you want to make to your daily instruction to your action plan.

Reading Subject Area Exam

Why Reading Matters

- The reading sub-test is important because it gives us information on how well a student can use and comprehend complex text.
- “Regardless whether a student aspires to postsecondary education, a job, the military, or just to be an informed citizen, the reading ability required is likely to be higher than what is typically required in high school.” (*Williamson, 2004*)
- **Typical Lexile levels of text:**

<ul style="list-style-type: none"> - 11th/12th grade textbook: 1090 - Military training manual: 1180 - Newspapers/sample ballot materials: 1230 - Postsecondary materials: 1355 - Child’s car seat instructions: 1170 - Federal tax forms: 1260 - Workplace expectation average: 1260 	<ul style="list-style-type: none"> - Agriculture/Natural resources: 1270-1510 - Architecture/Construction: 1210-1340 - Arts/AV Technology/Communications: 1100-1190 - Business and Administration: 1210 – 1310 - Education and Training: 1320-1370 - Health Science: 1260-1300 - Hospitality and Tourism: 1230-1260 - Human Services: 1050-1200 - Law and Public Safety: 1420-1740 - Manufacturing: 1200-1310 - Retail/Wholesale Sales and Service: 1180-1270 - Scientific Research/Engineering: 1190-1250 - Transportation, Distribution and Logistics: 1170-1350
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More information on Lexile measures may be found at: <https://ttac.gmu.edu/telegram/article-1>

Reading Practice Test Questions

DIRECTIONS: Turn to pages 32-33 in the Preparing for the ACT Test booklet. Answer the first six questions. An answer sheet is provided on page 68. You may also use the text box to record your answers below.

Answers:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Quick Reflection:

- Any key takeaways?
- What was exciting?
- What was challenging?
- Based on the sample questions you have completed, what are your initial thoughts about implications for your instruction?
- What changes might you make to instruction to support your students on this sub-test?

You can add changes you want to make to your daily instruction to your action plan in Module 1.

Reading Test Structure

- 40 questions in 35 minutes: Students have less than one minute to answer each multiple choice question.
- All questions belong to one of four passages, for about nine minutes per passage.
- Questions will show a student's understanding of:
 - What is directly stated
 - Statements with implied meanings

Test Design

Selection	Questions in this category are based on passages in the content areas of...
Social Studies (25 percent)	Anthropology, archaeology, biography, business, economics, education, geography, history, political science, psychology and sociology
Natural Sciences (25 percent)	Anatomy, astronomy, biology, botany, chemistry, ecology, geology, medicine, meteorology, microbiology, natural history, physiology, physics, technology and zoology
Literary Narrative or Prose Fiction (25 percent)	Short stories, novels, memoirs, and personal essays Short stories and novels
Humanities (25 percent)	Architecture, art, dance, ethics, film, language, literary criticism, music, philosophy, radio, television, theater, memoirs and personal essays

There are specific types of questions:

- Main Idea
 - Understanding main theme/thesis
 - Understanding author's purpose
- Supporting Details
 - Understand sequence of events
 - Make comparisons
- Inference/Evaluation
 - Make judgments
 - Determine the meaning of context-dependent words, phrases
 - Draw conclusions based on reading the passage
 - Determine the author's idea through generalization of the facts

Reading Standards Connections

- Standards covered in the ACT (such as “main idea”) are introduced as early as grade 3 in Tennessee state standards.
- However, the complexity of texts on the ACT is appropriate to grades 11-13. Therefore, students need regular practice with these concepts in increasingly complex, grade-appropriate text to be able to be successful on the ACT.
- Students should read a range of nonfiction/informational text from the natural sciences, social sciences, technical subjects, and humanities throughout the school year in all grades.

For more information on connections between the ACT Standards and Tennessee -State Standards in Reading, please read pages 21-26 in the “ACT Connections” document found online at:

https://gallery.mailchimp.com/b28b453ee164f9a2e2b5057e1/files/ACT_Connections_2_3_16.pdf

Reading Readiness Characteristics

The Reading Section measures readiness because:

- The biggest differentiator of success for our students is the ability to read complex text proficiently. We know that the majority of passages on the ACT are nonfiction/informational texts. Because of this, we need to further develop the literacy skills in our students to access all types of texts.

This section is important for students’ futures:

- Predictive of success in introductory social science postsecondary courses.
- Ability to find information in text and understand complex text is extremely valuable for employers.
- Complexity of text necessary for everyday life (ballot, car seat instructions) requires comprehension skills measured by ACT.

Reading Test Tips

- Questions can be broken down into “referring” questions and “reasoning” questions. Students can prioritize the ones they feel most comfortable with.
- Because answering all questions on this subtest requires moving very quickly, some strategies for answering all questions include:
 - Skimming passages for keywords and phrases
 - Answering first questions that refer to specific lines or paragraphs within a passage
 - Reading passages and answering questions according to personal preference, starting with passages in which the student is most comfortable or confident

Reflection: Reading Subtest Implications for Classroom

- Based on the sample questions you have completed, the design and structure of the test, and the readiness characteristics and test-taking tips we discussed, what are the implications for your instruction?
- What changes might you make to your daily instruction to support your students' improvement on the ACT Reading sub-test?

You can add changes you want to make to your daily instruction to your action plan in Module 1.

Science Subject Area Exam

Why Science Matters

The science sub-test is important because it gives us information on how well a student can interpret, analyze, and apply information that is representative of the type of problems and research they would be exposed to in a postsecondary or career environment:

- Predictive of success in introductory Biology or life science course, required for community college and university degrees
- Data representation section reflective of how technical, mechanical, and agricultural problems are approached
- Conflicting viewpoints and research summaries sections are reflective of how many “knowledge workers” approach their daily work (comparing inputs, synthesizing recommendations)

Science Practice Test Questions

DIRECTIONS: Turn to pages 40-41 in the Preparing for the ACT Test booklet. Answer the first five questions. An answer sheet is provided on page 68. You may also use the text box to record your answers below.

Answers:

- 1.
- 2.
- 3.
- 4.
- 5.

Quick Reflection:

- Any key takeaways?
- What was exciting?
- What was challenging?
- Based on the sample questions you have completed, what are your initial thoughts about implications for your instruction?
- What changes might you make to instruction to support your students on this sub-test?

Science Test Structure

- 40 questions in 35 minutes, students have less than one minute per question
- Questions belong to passages in three different formats: data representation, research summaries, and conflicting viewpoints.
- Test parallels science information typical of 7-12 grade classrooms, but measures reasoning skills, **NOT** recall of scientific knowledge.

Science Test Design

Type of Question	Description	Number of Passages	Number of Questions
Data Representation	Graphs, tables, and schematics.	3 passages	(30-40 percent)
<i>Measures data reading and interpretation. Data focused, small amount of text.</i>			
Research Summary	Description of set(s) of experiments.	3 passages	(45-55 percent)
<i>Focuses on design of experiments and interpreting results. Data and text mixed.</i>			
Conflicting Viewpoints	Conflicting hypothesis presented with rationale	1 passage	(15-20 percent)
<i>Focuses on understanding, analysis, and comparing viewpoints. Text only.</i>			

Science Standards Connections

- Do Tennessee Science Standards prepare for:
 - Data Representation? YES
 - **Skills** pertaining to data analysis and interpretation
 - Research Summary? NO
 - Indirectly prepared through **literacy** focus
 - Instructionally dependent
 - Conflicting Viewpoints? NO
- What is the difference?
 - Tennessee State Standards are focused on subject specific understanding, comprehension, and knowledge.
 - The ACT focuses on broad problem-solving skills with an emphasis on analytical reading.
- Best preparation for our students is intentional, thoughtful and rigorous teaching of our current K–12 science standards with particular emphasis on science literacy and the embedded inquiry and technology and engineering standards.

For more information on connections between the ACT Standards and Tennessee -State Standards in Science, please read pages 28-30 in the “ACT Connections” document found online at:

https://gallery.mailchimp.com/b28b453ee164f9a2e2b5057e1/files/ACT_Connections_2_3_16.pdf

Science Readiness Characteristics

The science section measures readiness because:

- It focuses on reasoning skills, not specific content knowledge. This is reflective of how our students will need to find and use information in the future.
- Students’ ability to quickly locate and synthesize information is typical of problem solving required in postsecondary and workforce.

This section is important for students’ futures:

- Predictive of success in introductory natural science postsecondary course.
- Ability to find information in text, interpret basic numerical data, and synthesize different viewpoints are extremely valuable for employers.

Science Test Tips

- Calculators are not allowed, as students are only required to perform data analysis without mathematical computations.
- Because answering all questions on this subtest requires moving very quickly, some strategies for answering all questions include:
 - Questions are arranged in order of difficult for each passage. Answer the first questions and skip* the last one(s), which are more difficult.
 - Skipping* the conflicting viewpoints section
 - Reading passages and answering questions according to personal preference, starting with passages in which the student is most comfortable or confident.

*Remember, students should input a guess for any questions they “skip” as they aren’t penalized for wrong answers!

Reflection: Science Subtest Implications for Classroom

- Based on the sample questions you have completed, the design and structure of the test, and the readiness characteristics and test-taking tips we discussed, what are the implications for your instruction?

- What changes might you make to your daily instruction to support your students’ improvement on the ACT Science sub-test?

You can add changes you want to make to your daily instruction to your action plan in Module 1.

Final Reflection-Subject Area Components

Directions:

Now that you have reviewed each subject area, turn and talk at your table. Share the information you wrote in your chart on page 45.

- Did any information surprise you?
- Do connections to instruction exist that you were not aware of?



Key Idea #4



The ACT measures **readiness** using comprehension, problem solving, and critical thinking, not just academic content knowledge.

Sample Question Answers

English	Math	Science	Reading
1. A	1. D	1. A	1. C
2. J	2. H	2. J	2. G
3. D	3. E	3. C	3. D
4. H	4. F	4. H	4. G
5. B	5. E	5. B	5. C
	6. H	6. J	

References: ACT Practice Questions and Answers

English Reference

<http://www.act.org/content/dam/act/unsecured/documents/Preparing-for-the-ACT.pdf>

Math Reference

<http://www.act.org/content/dam/act/unsecured/documents/Preparing-for-the-ACT.pdf>

Reading Reference

<http://www.act.org/content/dam/act/unsecured/documents/Preparing-for-the-ACT.pdf>

Science Reference

<http://www.act.org/content/dam/act/unsecured/documents/Preparing-for-the-ACT.pdf>

ACT and TN Assessment Connections

English and math ACT questions are based on skills and standards taught from elementary school through high school. This means that **students who have a strong foundation** in math and reading and **who consistently perform well on Tennessee state standardized assessments** will use the same skills to perform well on the ACT. Additionally, all academic areas have a crucial part to play in preparing students for ACT success. **Science and social studies teachers at all grade levels should be preparing students to read text in their content areas.**

- ACT Connections: Tennessee Academic Standards and ACT Subtests, p. 7

ACT Exam	State Assessments
Less than one minute per question: Rewards speed	Typically more time per question: Rewards deep thinking
Survey-level assessment covers concepts between grades 2-11	Displays a deeper understanding of grade-specific content standards
Selected response only	Have included selected and constructed responses, including writing
Basic computation, majority of problem solving is locating and interpreting information	Recall of complex formulas and extensive computation is required

Critical Connections

- ACT is a comprehensive test of entire K-12 career.
- The majority of skills needed to score in 19-21 range on ACT, students should acquire between 3rd – 9th grade in Tennessee state standards.
- However, there are some standards and item types on the ACT that students will not be familiar with by their junior year.
- State assessments are subject and standard specific for a given year.
- ACT success is in part based on speed.

ACT and TN Connections with Instructional Standards

Multiple Tennessee academic standards are embedded within a single ACT Readiness Standard for mathematics and ELA.

- If you have a personal device with you, please visit the “ACT Connections” document found online at https://gallery.mailchimp.com/b28b453ee164f9a2e2b5057e1/files/ACT_Connections_2_3_16.pdf and chose a specific subject-area to review
 - Students should be consistently exposed to all of the Tennessee Academic Standards to be successful on the ACT.
 - ACT subtests assess the entirety of a student’s academic career (snapshot of K-12).
 - **If building blocks are left out—even in the early grades—students are less prepared to be successful on this important measure of college and career readiness.**

Tennessee's Approach to ACT Growth

All schools must develop a culture of student readiness, focused on high-quality instruction:

- The behaviors and practices, beliefs, and values modeled by all educators support our vision that all students will be prepared for their chosen path in life.
- Adults encourage and empower students, never limit them.
- **Preparation for the ACT is embedded in the academic culture of all districts for all students (K-12).**





Key Idea #5



While ACT is a survey-level assessment that measures skills acquired over an entire K-12 career and state assessments are grade-level and subject-specific to measure deep content knowledge, rigorous daily **instruction** will prepare students for success on both assessments.

Reflection: ACT & Tennessee Standards/Assessment Alignment

- In what ways might exposure to ACT practice and state standards alignment help educators plan for instruction?
- Thinking about planning and instruction, what excites you about learning for students? What is still a concern for you?
- Considering your experience with ACT practice questions and TN standards comparison, what are your new thoughts about the implications for instruction with college and career ready expectations?

Readiness for All Students

The Governor's college-going initiatives have made college-going a possibility for more students.



Series of linked initiatives aimed at bringing the percentage of Tennesseans with college degrees or certifications to 55 percent by the year 2025.



Offers all Tennessee high school graduates the opportunity to attend a community college or college of applied technology free of tuition and fees and provides a mentor to all who enroll.

As a state, we recognize that high school graduation is no longer the goal of K-12 education. Rather, it is our job to prepare our students to successfully complete a postsecondary certificate, degree, or credential.

However, 17 percent of 2015 high school graduates did not take the ACT.

If we allow current trends to continue, only **24 percent** of high school graduates will earn a **postsecondary certificate** or degree **within six years** of their high school graduation.

Students who graduate with a high school diploma in Tennessee but don't go on to postsecondary:

- are earning minimum-wage (for an average salary of about \$9,000 a year) in part-time and service positions
- are not on a pathway to a sustaining wage position
- are not qualified for a majority of the new jobs being developed in the state

In order for jobs to remain in Tennessee, significantly more students need to be ready for postsecondary and career following high school graduation. This involves addressing three critical factors:

- Increase students who enroll in and complete postsecondary
- Decrease students requiring remediation by identifying and addressing their deficiencies while still in high school
- Ensure students who are entering the workforce directly from high school are prepared to move out of entry-level jobs quickly and on to advanced training in order to earn a sustainable wage

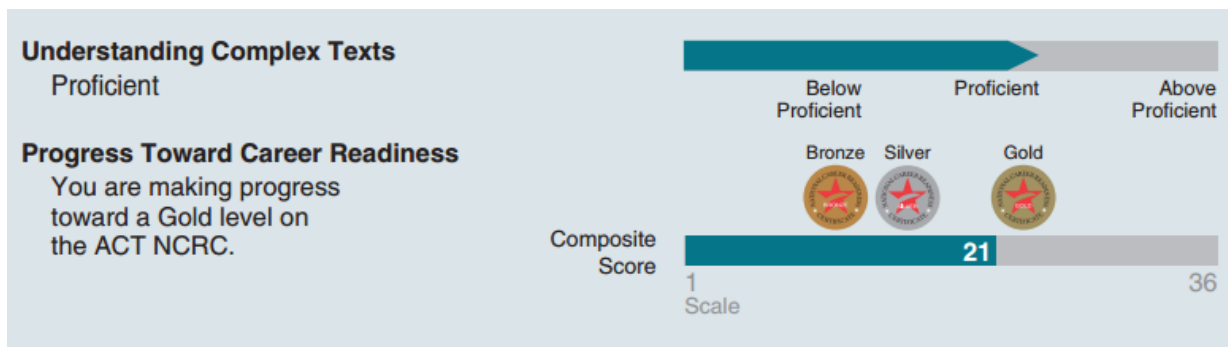
2006 ACT Study: “Ready for College and Ready for Work: Same or Different?”

“We should be educating all high school students according to common academic expectation, one that prepares them for both postsecondary education and workforce.”

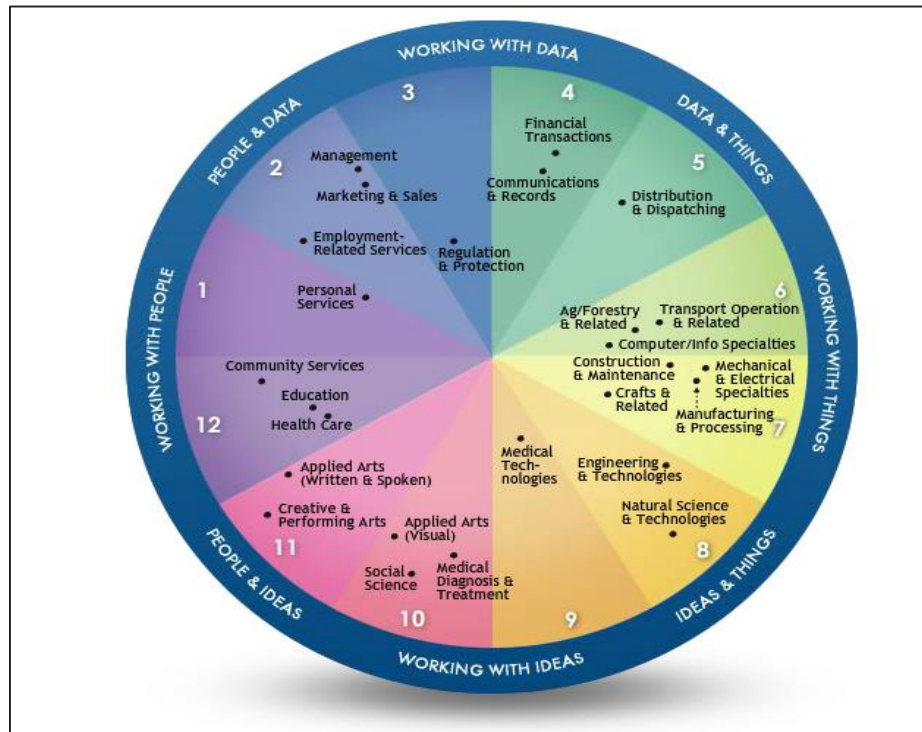
- Defined workforce readiness as being able to obtain a Zone 3 Occupational Information Network (O*Net) job
 - Does not require a bachelor’s degree, but does often require additional training
 - Percentage of jobs available to student based on level of achievement on NCRC

“Progress Toward Career Readiness” score directly on student score reports. This is a potential level of achievement on the National Career Readiness Certificate (NCRC), recognized by numerous employers in Tennessee

NCRC levels	Skill levels demonstrates ability for*
Bronze	16% of jobs
Silver	67% of jobs
Gold	93% of jobs
Platinum	99% of jobs



ACT World of Work Map



- Graphically shows how occupations relate to each other based on work tasks.
- Personalized report included on each student score report
- Suggested map regions and career areas can be explored:
 - ACT provides “profiles of success” for each occupation
 - Provides range of typical ACT composite scores of successful majors in these fields
 - Students can compare their score to those needed in a specific area

<http://www.act.org/content/dam/act/unsecured/multimedia/wwmap/world.html>



Key Idea #6



Student readiness and success on the ACT has implications for more than just 4-year college preparation. It is also an important predictor of success in the workforce and other postsecondary **pathways**.

Reflection

Module 2 opened with a Call to Action:

"The Condition of College & Career Readiness 2015 points to the need for federal, state, and local policymakers and agency heads to support the **readiness of all students for college and career.**"

- The Condition of College & Career Readiness, 2015.

- What action steps can you take to ensure student readiness for the ACT?
- Which instructional practices will you adjust or refine to ensure college and career readiness for all students? You can add changes you want to make to your daily instruction to your action plan in Module 1.

Closing Reflection:

What are your most important takeaways about each key idea from today? How can you apply the Key Ideas to your current role in your school?

Key Idea	Your Takeaways
Key Idea #4 The ACT measures readiness using comprehension, problem solving, and critical thinking, not just academic content knowledge.	
Key Idea #5 While ACT is a survey-level assessment that measures skills acquired over an entire K-12 career and state assessments are grade-level and subject-specific to measure deep content knowledge, rigorous daily instruction will prepare students for success on both assessments.	
Key Idea #6 Student readiness and success on the ACT has implications for more than just 4-year college preparation. It is also an important predictor of success in the workforce and other postsecondary pathways .	

Module 3:
Instructional Planning for Student Readiness
[TAB PAGE]

Module 3: Instructional Planning for Student Readiness

A Bridge from Day 1

- As a table, discuss your biggest takeaway from yesterday. What were your ah-ha moments?
- What implications did yesterday's modules have for your school or district?
- What implications did yesterday's modules have for you in your professional practices?
- What are your expectations for today's session?

Objectives

- Define the content literacy skills necessary for students to be successful on the ACT
- Examine ACT Standards and Tennessee State Standards to find commonality and connection points to build on in daily instruction
- Make actionable school and classroom plans for integrating ACT skills into content area instruction

Rationale

“U.S. high school graduates continue to make little progress in college and career readiness, according to [The Condition of College & Career Readiness 2015](#), the latest annual student readiness report from ACT, released today. The lack of growth has prompted ACT to issue a call to action to policymakers, educators, students and parents, urging them to do their part to help improve educational outcomes and support college and career readiness for all students.”

“This year, 40 percent of graduates showed strong readiness, meeting the [ACT College Readiness Benchmarks](#) in at least three of the four core subject areas (English, math, reading and science). That percentage has stayed virtually flat over the past five years.

In contrast, 31 percent of students did not meet readiness levels in any of the four subject areas. This figure is unchanged from the past two years and slightly higher than in 2011 and 2012.”

- Retrieved from <http://www.act.org/content/act/en/newsroom/us-high-school-graduates-showing-little-progress-in-college-readiness.html> February 2016, ACT 2015 Public Students Cohort Report.

- Based on the rationale above, what implications does Module 3 potentially have on instruction in your school or classroom?
- Based on the Benchmarks discussed in Module 2, what goals do you have for your instruction?

What does the ACT ask students to do?

"The biggest differentiator of success for our students on the ACT, is the **ability to read complex text proficiently**. We know that the majority of passages on the ACT are nonfiction/informational texts. Because of this, we need to **further develop the literacy skills in our students to access all types of texts**. Strong reading, fluency, comprehension, and stamina should be encompassed in our classrooms every day. **It is only when our students are strong readers will we be able to see significant movement in our state's ACT average**, signaling that Tennessee students are ready for the challenges of college and the workforce."

- Commissioner Candice McQueen

The desire to raise Tennessee's ACT average is rooted in **improving postsecondary and career readiness** for all Tennessee students. This goal reflects the reality that Tennessee students will enter a workforce that requires some type of postsecondary training. With **a score of 21**, students are **predicted to be more successful in both college and career**.

- ACT Connections: Tennessee Academic Standards and ACT Subtests, p. 7

The skills of the ACT English and reading extend across grade levels; however, the **biggest differentiator of success** is the ability to read complex text proficiently. The Tennessee academic standards call for students to have **regular practice with complex text**. It does mean that students should **read a range of nonfiction/informational text** from the natural sciences, social sciences, and humanities throughout the school year.

- ACT Connections: Tennessee Academic Standards and ACT Subtests, p. 6

"English and math ACT questions are based on skills and standards taught from elementary school through high school. This means that **students who have a strong foundation in math and reading** and who consistently perform well on state assessments will use the same skills to perform well on the ACT. Additionally, all academic areas have a crucial part to play in preparing students for ACT success. **Science and social studies teachers at all grade levels should be preparing students to read text in their content areas.**"

- ACT Connections: Tennessee Academic Standards and ACT Subtests, p. 7



- As educators, we set goals for our students to attain a score of 21 or higher, what are we really saying to students, to families, to their postsecondary opportunities?
- We are really saying that we are committing to presenting students with appropriately-complex informational and literary texts at each grade level.
- Students can successfully interact with complex texts to discern meaning, make inferences, and synthesize information.

"Given high-quality instruction, all students tackle cognitively complex tasks by building knowledge through daily interaction with rich text, marshalling evidence to support an idea, creating unique and purposeful writing, and building a dynamic vocabulary to become skilled in each content area."

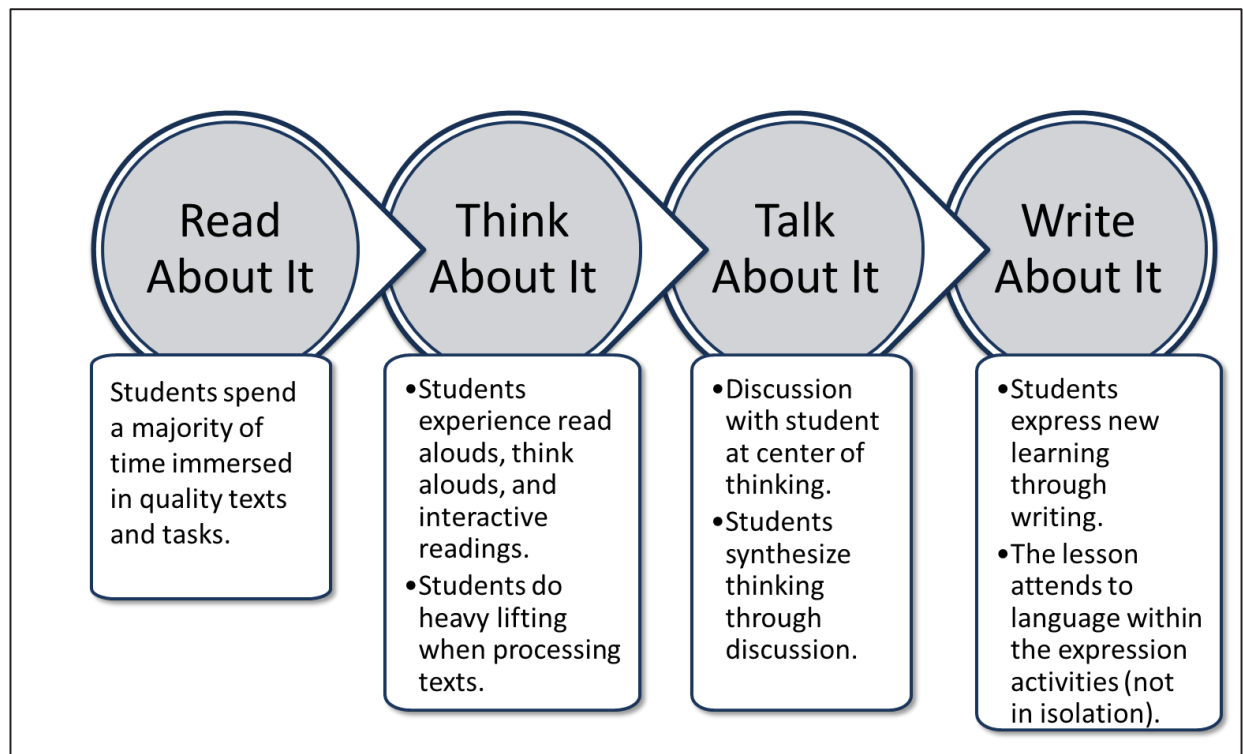
- Miah Daugherty, ELA Coordinator, TDOE

What do the ELA standards say about literacy?

"Literacy is a multi-faceted, complex relationship of interrelated skills. The ultimate goal of literacy instruction is for students to become proficient readers and writers." p.4

"As human beings, we have the right to literacy (UNESCO, 2005). Educators have the responsibility to provide students with the tools to become active, literate members of our society." p.5

"The committee of Tennessee teachers, administrators, and higher education faculty who wrote the standards maintained an intentional focus on the language of the four strands. Following the mantra of "read about it, think about it, talk about it, write about it"—the committee view reading and writing as reciprocal skills; therefore, the role of texts and routine writing permeates all of the standards. Students should read high quality texts, discuss their interpretation and analysis, and write about their learning." p.2



Types of Thinking

- Literal: Evaluate a single text, synthesize ideas from different texts
- Inferential: Analyze the meaning of a text, applying knowledge from within the text and from background knowledge
- Critical: Synthesize knowledge and provide explanation of new understanding

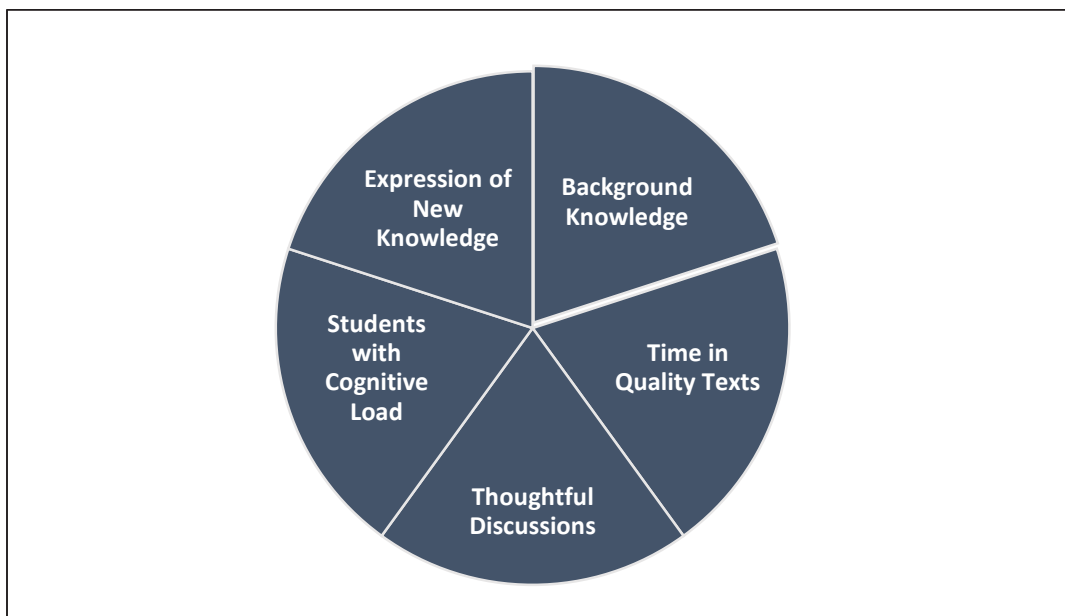
Refer back to the chart about the ACT subtests you created on page 45 of your manual. What stands out to you about these types of thinking? When does the ACT have students do each?

Task Predicts Performance

"What determines what students know and are able to do is not what the curriculum says they are supposed to do, nor even what the teacher thinks he or she is asking students to do. What predicts performance is what students are actually doing."

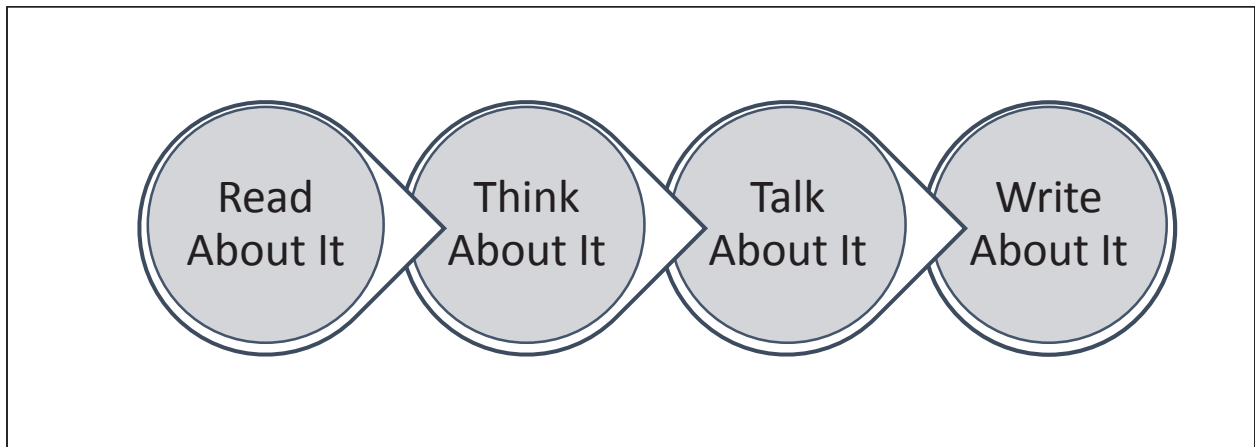
- Richard F. Elmore (2008)

- How are we connecting the reading (meaning making) and writing (expression of new understanding) each day?



Literacy Across Content Areas

Read the information about literacy across the different content areas, focusing on the content area that best fits your subject area expertise. Capture information in the graphic organizer below about how this should look in your specific content-area classroom.



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Literacy in Social Studies

- Embedded within the Tennessee Social Studies standards, there are 194 various primary sources found in our standards that are labeled either “to read” or “to consider.”
- There are also 101 standards that students could potentially be asked to write on for our state assessments.
- These are the documents and standards that teachers should be using to allow students ample opportunities to Think, Read, and Write like Historians.
- Students should spend a majority of their time immersed in primary source documents.
- Students should be exposed to context and academic vocabulary specific to social studies.
- Students should be exposed to multiple perspectives on historical issues and use academic language to write accurately to describe and synthesize those perspectives, including their own.

Literacy in Science & Technical Subjects

- Effective communication within a scientific or technical context requires students to apply literacy skills in reading, vocabulary, speaking and listening, and writing.
- Scientific and technical information is presented in **multiple formats** from various tones and perspectives.
- Scientifically and technically literate students must **process and synthesize information** effectively to **generate new ideas and solutions** while presented in **multiple formats** from various tones and perspectives.
- Students are able to interpret and analyze information in tables, charts, diagrams, and infographics.
- Students should spend a majority of their time immersed in a variety of authentic texts, including laboratory experiments, articles, and technical manuals.
- Students should be required to read, and produce, representations of data using academic and technical vocabulary.
- Students should be able to write in a style that is appropriate for their audience, including data analysis and documenting sequences of events.

Literacy in Mathematics Standards

- “Reading in mathematics is different from reading literature. Mathematics contains expository text along with precise definitions, theorems, examples, graphs, tables, charts, diagrams, and exercises.” (p. 13)
- “Students are expected to recognize multiple representations of information, use mathematics in context, and draw conclusions from the information presented.” (p. 13)
- “Mathematically proficient students write mathematical arguments to support and refute conclusions and cite evidence for these conclusions.” (p. 14)
- Mathematically proficient students have the capacity to **engage fully with mathematics in context** by posing questions, choosing appropriate problem-solving approaches, and justifying solutions.
- Mathematically proficient students **communicate using precise terminology and multiple representations** including graphs, tables, charts, and diagrams.
- By describing and contextualizing mathematics, **students create arguments and support conclusions**. They evaluate and critique the reasoning of others and analyze and reflect on their own thought processes.



Key Idea #7



Literacy across all content areas is extremely important to improving ACT scores and ensuring our students are prepared for whatever **pathway** they choose.

ACT Mathematics Standards

Reminder: The ACT College Readiness Benchmark for Mathematics is 22. Students who achieve this score have a 50 percent likelihood of achieving a B or better in a first-year College Algebra course at a typical college. Knowledge and skills highly likely to be demonstrated by students who meet the Benchmark are in bold in the table above.

Score Range	Topics in the Flow to Number and Quantity (N)
13-15	N 201. Perform one-operation computation with whole numbers and decimals. N202. Recognize equivalent fractions and fractions in lowest terms N203. Locate positive rational numbers (expressed as whole numbers, fractions, decimals, and mixed numbers) on the number line.
16-19	N 301. Recognize one-digit factors of a number. N 302. Identify a digit's place value. N 303. Locate rational numbers on the number line.
20-23	N 401. Exhibit knowledge of elementary number concepts such as rounding, the ordering of decimals, pattern identification, primes, and greatest common factor N 402. Write positive powers of 10 by using exponents. N 403. Comprehend the concept of length on the number line, and find the distance between two points. N 404. Understand absolute value in terms of distance. N 405. Find the distance in the coordinate plane between two points with the same x-coordinate or y-coordinate. N 406. Add two matrices that have whole number entries.
24-27	N 501. Order fractions N 502. Find and use the least common multiple N 503. Work with numerical factors N 504. Exhibit some knowledge of the complex numbers N 505. Add and subtract matrices that have integer entries
28-32	N 601. Apply number properties involving prime factorization. N 602. Apply number properties involving even/odd numbers and factors/multiples N 603. Apply number properties involving positive/negative numbers N.604. Apply the facts that π is irrational and that the square root of an integer is rational only if that integer is a perfect square. N 605. Apply properties of rational exponents.

	<p>N 606. Multiply two complex numbers.</p> <p>N 607. Use relations involving addition, subtraction, and scalar multiplication of vectors and matrices.</p>
33-36	<p>N 701. Analyze and draw conclusions based on number concepts.</p> <p>N 702. Apply properties of rational numbers and the rational number system.</p> <p>N 703. Apply properties of real numbers and the real number system, including properties of irrational numbers.</p> <p>N 704. Apply properties of complex numbers and the complex number system.</p> <p>N 705. Multiply matrices.</p> <p>N 706. Apply properties of matrices and properties of matrices as a number system.</p>

ACT Mathematics Standards

Score Range	Topics in the Flow To Algebra (A)	Topics in the Flow To Functions (F)
13-15	AF 201. Solve problems in one or two steps using whole numbers and using decimals in the context of money.	
	A 201. Exhibit knowledge of basic expressions (e.g. identify an expression for a total as $b + g$). A 202. Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals.	F 201. Extend a given pattern by a few terms for patterns that have a constant increase or decrease between terms.
16-19	AF 301. Solve routine one-step arithmetic problems using positive rational numbers, such as single-step percent AF 302. Solve some routine two-step arithmetic problems AF 303. Relate a graph to a situation described qualitatively in terms of familiar properties such as before and after, increasing and decreasing, higher and lower AF 304. Apply a definition of an operation for whole numbers (e.g., $a \div b = 3a - b$)	
	A 301. Substitute whole numbers for unknown quantities to evaluate expressions A 302. Solve one-step equations to get integer or decimal answers A 303. Combine like terms (e.g., $2x + 5x$)	F 301. Extend a given pattern by a few terms for patterns that have a constant factor between terms.
20-23	AF 401. Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and estimating by using a given average value in place of actual values AF 402. Perform straightforward word-to-symbol translations AF 403. Relate a graph to a situation described in terms of a starting value and an additional amount per unit (e.g., unit cost, weekly growth)	
	A 401. Evaluate algebraic expressions by substituting integers for unknown quantities	F 401. Evaluate linear and quadratic functions, expressed in function notation, at integer Values

	<p>A 402. Add and subtract simple algebraic expressions</p> <p>A 403. Solve routine first-degree equations</p> <p>A 404. Multiply two binomials</p> <p>A 405. Match simple inequalities with their graphs on the number line (e.g., $x \geq -$)</p> <p>A 406. Exhibit knowledge of slope]</p>	
24-27	<p>AF 501. Solve multistep arithmetic problems that involve planning or converting common derived units of measure (e.g., feet per second to miles per hour)</p> <p>AF 502. Build functions and write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions)</p> <p>AF 503. Match linear equations with their graphs in the coordinate plane</p>	
	<p>A 501. Recognize that when numerical quantities are reported in real-world contexts, the numbers are often rounded</p> <p>A 502. Solve real-world problems by using first-degree equations</p> <p>A 503. Solve first-degree inequalities when the method does not involve reversing the inequality sign</p> <p>A 504. Match compound inequalities with their graphs on the number line (e.g., $-10.5 < x \leq 20.3$)</p> <p>A 505. Add, subtract, and multiply polynomials</p> <p>A 506. Identify solutions to simple quadratic equations</p>	<p>F 501. Evaluate polynomial functions, expressed in function notation, at integer values</p> <p>F 502. Find the next term in a sequence described recursively</p> <p>F 503. Build functions and use quantitative information to identify graphs for relations that are proportional or linear</p> <p>F 504. Attend to the difference between a function modeling a situation and the reality of the situation</p> <p>F 505. Understand the concept of a function as having a well-defined output value at each valid input value</p>
	<p>507. Solve quadratic equations in the form $(x + a)(x + b) = 0$, where a and b are numbers or variables</p>	<p>F 506. Understand the concept of domain and range in terms of valid input and output, and in terms of function graphs</p> <p>F 507. Interpret statements that use</p>

	<p>A 508. Factor simple quadratics (e.g., the difference of squares and perfect square trinomials)</p> <p>A 509. Work with squares and square roots of numbers</p> <p>A 510. Work with cubes and cube roots of numbers</p> <p>A 511. Work with scientific notation</p> <p>A 512. Work problems involving positive integer exponents</p> <p>A 513. Determine when an expression is undefined</p> <p>A 514. Determine the slope of a line from an equation</p>	<p>function notation in terms of their context</p> <p>F 508. Find the domain of polynomial functions and rational functions</p> <p>F 509. Find the range of polynomial functions</p> <p>F 510. Find where a rational function's graph has a vertical asymptote</p> <p>F 511. Use function notation for simple functions of two variables</p>
28-32	<p>AF 601. Solve word problems containing several rates, proportions, or percentages</p> <p>AF 602. Build functions and write expressions, equations, and inequalities for common algebra settings</p> <p>AF 603. Interpret and use information from graphs in the coordinate plane</p> <p>AF 604. Given an equation or function, find an equation or function whose graph is a translation by a specified amount up or down</p>	
	<p>A 601. Manipulate expressions and equations</p> <p>A 602. Solve linear inequalities when the method involves reversing the inequality sign</p> <p>A 603. Match linear inequalities with their graphs on the number line</p> <p>A 604. Solve systems of two linear equations</p> <p>A 605. Solve quadratic equations</p> <p>A 606. Solve absolute value equations</p>	<p>F 601. Relate a graph to a situation described qualitatively in terms of faster change or slower change</p> <p>F 602. Build functions for relations that are inversely proportional</p> <p>F 603. Find a recursive expression for the general term in a sequence described recursively</p> <p>F 604. Evaluate composite functions at integer values</p>
33-36	<p>AF 701. Solve complex arithmetic problems involving percent of increase or decrease or requiring integration of several concepts (e.g., using several ratios, comparing percentages, or comparing averages)</p> <p>AF 702. Build functions and write expressions, equations, and inequalities when the process requires planning and/or strategic manipulation</p>	

	<p>AF 703. Analyze and draw conclusions based on properties of algebra and/or functions</p> <p>AF 704. Analyze and draw conclusions based on information from graphs in the coordinate plane</p> <p>AF 705. Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$</p> <p>AF 706. Given an equation or function, find an equation or function whose graph is a translation by specified amounts in the horizontal and vertical directions</p>	
33-36	<p>A 701. Solve simple absolute value inequalities</p> <p>A 702. Match simple quadratic inequalities with their graphs on the number line</p> <p>A 703. Apply the remainder theorem for polynomials, that $P(a)$ is the remainder when $P(x)$ is divided by $(x - a)$</p>	<p>F 701. Compare actual values and the values of a modeling function to judge model fit and compare models</p> <p>F 702. Build functions for relations that are exponential</p> <p>F 703. Exhibit knowledge of geometric sequences</p> <p>F 704. Exhibit knowledge of unit circle trigonometry</p> <p>F 705. Match graphs of basic trigonometric functions with their equations</p> <p>F 706. Use trigonometric concepts and basic identities to solve problems</p> <p>F 707. Exhibit knowledge of logarithms</p> <p>F 708. Write an expression for the composite of two simple functions</p>

ACT Mathematics Standards

Score Range	Topics in the Flow to Geometry
13-15	<p>G 201. Estimate the length of a line segment based on other lengths in a geometric figure</p> <p>G 202. Calculate the length of a line segment based on the lengths of other line segments that go in the same direction (e.g., overlapping line segments and parallel sides of polygons with only right angles)</p> <p>G 203. Perform common conversions of money and of length, weight, mass, and time within a measurement system (e.g., dollars to dimes, inches to feet, and hours to minutes)</p>
16-19	<p>G 301. Exhibit some knowledge of the angles associated with parallel lines</p> <p>G 302. Compute the perimeter of polygons when all side lengths are given</p> <p>G 303. Compute the area of rectangles when whole number dimensions are given</p> <p>G 304. Locate points in the first quadrant</p>
20-23	<p>G 401. Use properties of parallel lines to find the measure of an angle</p> <p>G 402. Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°)</p> <p>G 403. Compute the area and perimeter of triangles and rectangles in simple problems</p> <p>G 404. Find the length of the hypotenuse of a right triangle when only very simple computation is involved (e.g., 3-4-5 and 6-8-10 triangles)</p> <p>G 405. Use geometric formulas when all necessary information is given</p> <p>G 406. Locate points in the coordinate plane</p> <p>G 407. Translate points up, down, left, and right in the coordinate plane</p>

4-27	<p>G 501. Use several angle properties to find an unknown angle measure</p> <p>G 502. Count the number of lines of symmetry of a geometric figure</p> <p>G 503. Use symmetry of isosceles triangles to find unknown side lengths or angle measures</p> <p>G 504. Recognize that real-world measurements are typically imprecise and that an appropriate level of precision is related to the measuring device and procedure</p> <p>G 505. Compute the perimeter of simple composite geometric figures with unknown side lengths</p> <p>G 506. Compute the area of triangles and rectangles when one or more additional simple steps are required</p> <p>G 507. Compute the area and circumference of circles after identifying necessary information</p> <p>G 508. Given the length of two sides of a right triangle, find the third when the lengths are Pythagorean triples</p> <p>G 509. Express the sine, cosine, and tangent of an angle in a right triangle as a ratio of given side lengths</p> <p>G 510. Determine the slope of a line from points or a graph</p> <p>G 511. Find the midpoint of a line segment</p> <p>G 512. Find the coordinates of a point rotated 180° around a given center point</p>
28-32	<p>G 601. Use relationships involving area, perimeter, and volume of geometric figures to compute another measure (e.g., surface area for a cube of a given volume and simple geometric probability)</p> <p>G 602. Use the Pythagorean theorem</p> <p>G 603. Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles</p> <p>G 604. Apply basic trigonometric ratios to solve right-triangle problems</p> <p>G 605. Use the distance formula</p> <p>G 606. Use properties of parallel and perpendicular lines to determine an equation of a line or coordinates of a point</p> <p>G 607. Find the coordinates of a point reflected across a vertical or horizontal line or across $y = x$</p> <p>G 608. Find the coordinates of a point rotated 90° about the origin</p> <p>G 609. Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle)</p>

33-36	<p>G 701. Use relationships among angles, arcs, and distances in a circle</p> <p>G 702. Compute the area of composite geometric figures when planning and/or visualization is required</p> <p>G 703. Use scale factors to determine the magnitude of a size change</p> <p>G 704. Analyze and draw conclusions based on a set of conditions</p> <p>G 705. Solve multistep geometry problems that involve integrating concepts, planning, and/or visualization</p>
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ACT Mathematics Standards

Scoring Range	TOPICS IN THE FLOW TO Statistics and Probability (S)
13-15	<p>S 201. Calculate the average of a list of positive whole numbers</p> <p>S 202. Extract one relevant number from a basic table or chart, and use it in a single computation</p>
16-19	<p>S 301. Calculate the average of a list of numbers</p> <p>S 302. Calculate the average given the number of data values and the sum of the data values</p> <p>S 303. Read basic tables and charts</p> <p>S 304. Extract relevant data from a basic table or chart and use the data in a computation</p> <p>S 305. Use the relationship between the probability of an event and the probability of its complement</p>
20-23	<p>S 401. Calculate the missing data value given the average and all data values but one</p> <p>S 402. Translate from one representation of data to another (e.g., a bar graph to a circle graph)</p> <p>S 403. Determine the probability of a simple event</p> <p>S 404. Describe events as combinations of other events (e.g., using and, or, and not)</p> <p>S 405. Exhibit knowledge of simple counting techniques</p>
24-27	<p>S 501. Calculate the average given the frequency counts of all the data values</p> <p>S 502. Manipulate data from tables and charts</p> <p>S 503. Compute straightforward probabilities for common situations</p> <p>S 504. Use Venn diagrams in counting</p> <p>S 505. Recognize that when data summaries are reported in the real world, results are often rounded and must be interpreted as having appropriate precision</p> <p>S 506. Recognize that when a statistical model is used, model values typically differ from actual values</p>
28-32	<p>S 601. Calculate or use a weighted average</p> <p>S 602. Interpret and use information from tables and charts, including two-way frequency tables</p> <p>S 603. Apply counting techniques</p> <p>S 604. Compute a probability when the event and/or sample space are not given or obvious</p>

	<p>S 605. Recognize the concepts of conditional and joint probability expressed in real-world contexts</p> <p>S 606. Recognize the concept of independence expressed in real-world contexts</p>
33-36	<p>S 701. Distinguish between mean, median, and mode for a list of numbers</p> <p>S 702. Analyze and draw conclusions based on information from tables and charts, including two-way frequency tables</p> <p>S 703. Understand the role of randomization in surveys, experiments, and observational studies</p> <p>S 704. Exhibit knowledge of conditional and joint probability</p> <p>S 705. Recognize that part of the power of statistical modeling comes from looking at regularity in the differences between actual values and model values</p>

Math Task Sheet

Part I—Understanding the ACT Math Standards and Benchmarks

- Read the ACT Math Standards at the beginning of this module, annotating and highlighting as appropriate.
- Notice characteristics of the sample questions and their relationship with the standards.
- Make note of things you notice and things you wonder.

Part II—Categorizing Questions in Compliance with the Standards

- Read Sample Questions 1-5 on p. 24 in the Preparing for the ACT Booklet.
- Based on the standards categories and scoring ranges, categorize the questions with N for Number and Quantity, AF for Algebra and Flow, G for Geometry, and S for Statistics and Probability. If possible, categorize to a scoring range and/or a specific standard.

Part III—Question Writing

- Write one sample question for each of the four categories.
- Chart your completed questions and list the ACT standard to which each question is connected. Provide a Tennessee State Standard that is connected with your question.
- This will be part of a gallery walk at the conclusion of the module.

ACT Math Task Reflection

- How can understanding the *relationship* between ACT Standards and the questions help *guide* instruction?
- Were there any surprises or “ah-ha” moments in this activity for you?
- What questions do you have about the ACT Standards and their relation to instruction in Tennessee?

ACT Math Task Part Two

Part I—Integrating the Standards into Instruction

- For one or more courses in your school, compare the Tennessee State Standards to the ACT Standards.
- Look for areas of commonality *as well as* areas of difference.
- Chart the similarities and differences that you notice.

Part II—Brainstorming Instructional Strategies

- Based on the chart of your findings of commonality, discuss methods and strategies that you can use to integrate ACT standards and concepts into your instruction.
- Based on the chart of your findings of differences, discuss methods and strategies that you can use to integrate ACT standards and concepts that are not as closely connected to state standards into your instruction.
- Chart the methods and strategies that you discuss to be shared as part of the gallery walk.

ACT English Standards

Reminder: The ACT College Readiness Benchmark for English is 18. Students who achieve this score have a 50 percent likelihood of achieving a B or better in a first-year English Composition course at a typical college. Knowledge and skills highly likely to be demonstrated by students who meet the Benchmark are in bold.

Score Range	PRODUCTION OF WRITING
	Topic Development in Terms of Purpose and Focus (TOD)
13-15	TOD 201. Delete material because it is obviously irrelevant in terms of the topic of the essay
16-19	TOD 301 Delete material because it is obviously irrelevant in terms of the focus of the essay TOD 302. Identify the purpose of a word or phrase when the purpose is simple (e.g., identifying a person, defining a basic term, using common descriptive adjectives) TOD 303. Determine whether a simple essay has met a straightforward goal
20-23	TOD 401. Determine relevance of material in terms of the focus of the essay TOD 402. Identify the purpose of a word or phrase when the purpose is straightforward (e.g., describing a person, giving examples) TOD 403. Use a word, phrase, or sentence to accomplish
24-27	TOD 501. Determine relevance of material in terms of the focus of the paragraph TOD 502. Identify the purpose of a word, phrase, or sentence when the purpose is fairly straightforward (e.g., identifying traits, giving reasons, explaining motivations) TOD 503. Determine whether an essay has met a specified goal TOD 504. Use a word, phrase, or sentence to accomplish a fairly straightforward purpose (e.g., sharpening an essay's focus, illustrating a given statement)
28-32	TOD 601. Determine relevance when considering material that is plausible but potentially irrelevant at a given point in the essay TOD 602. Identify the purpose of a word, phrase, or sentence when the purpose is subtle (e.g., supporting a later point, establishing tone) or when the best decision is to delete the text in question TOD 603. Use a word, phrase, or sentence to accomplish a subtle purpose (e.g., adding emphasis or supporting detail, expressing meaning through connotation)

33-36	<p>TOD 701. Identify the purpose of a word, phrase, or sentence when the purpose is complex (e.g., anticipating a reader's need for background information) or requires a thorough understanding of the paragraph and essay</p> <p>TOD 702. Determine whether a complex essay has met a specified goal</p> <p>TOD 703. Use a word, phrase, or sentence to accomplish a complex purpose, often in terms of the focus of the essay</p>
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ACT English Standards

Scoring Range	PRODUCTION OF WRITING Organization, Unity, and Cohesion (ORG)
13-15	ORG 201. Determine the need for transition words or phrases to establish time relationships in simple narrative essays (e.g., then, this time)
16-19	ORG 301. Determine the most logical place for a sentence in a paragraph ORG 302. Provide a simple conclusion to a paragraph or essay (e.g., expressing one of the essay's main ideas)
20-23	ORG 401. Determine the need for transition words or phrases to establish straightforward logical relationships (e.g., first, afterward, in response) ORG 402. Determine the most logical place for a sentence in a straightforward essay ORG 403. Provide an introduction to a straightforward paragraph ORG 404. Provide a straightforward conclusion to a paragraph or essay (e.g., summarizing an essay's main idea or ideas) ORG 405. Rearrange the sentences
24-27	ORG 501. Determine the need for transition words or phrases to establish subtle logical relationships within and between sentences ORG 502. Provide a fairly straightforward introduction or conclusion to or transition within a paragraph or essay ORG 503. Rearrange the sentences in a fairly straightforward paragraph for the sake of logic ORG 504. Determine the best place to divide a paragraph to meet a particular rhetorical goal ORG 505. Rearrange the paragraphs in an essay for the sake of logic
28-32	ORG 601. Determine the need for transition words or phrases to establish subtle logical relationships within and between paragraphs ORG 602. Determine the most logical place for a sentence in a fairly complex essay ORG 603. Provide a subtle introduction or conclusion to or transition within a paragraph or essay (e.g., echoing an essay's theme or restating the main argument) ORG 604. Rearrange the sentences in a fairly complex paragraph for the sake of logic and coherence

33-36	<p>ORG 701. Determine the need for transition words or phrases, basing decisions on a thorough understanding of the paragraph and essay</p> <p>ORG 702. Provide a sophisticated introduction or conclusion to or transition within a paragraph or essay, basing decisions on a thorough understanding of the paragraph and essay (e.g., linking the conclusion to one of the essay's main images)</p>
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ACT English Standards

Scoring Range	KNOWLEDGE OF LANGUAGE Knowledge of Language (KLA)
13-15	KLA 201. Revise vague, clumsy, and confusing writing that creates obvious logic problems
16-19	KLA 301. Delete obviously redundant and wordy material KLA 302. Revise expressions that deviate markedly from the style and tone of the essay
20-23	KLA 401. Delete redundant and wordy material when the problem is contained within a single phrase (e.g., “alarmingly startled,” “started by reaching the point of beginning”) KLA 402. Revise expressions that deviate from the style and tone of the essay KLA 403. Determine the need for conjunctions to create straightforward logical links between clauses KLA 404. Use the word or phrase most appropriate in terms of the content of the sentence when the vocabulary is relatively common
24-27	KLA 501. Revise vague, clumsy, and confusing writing KLA 502. Delete redundant and wordy material when the meaning of the entire sentence must be considered KLA 503. Revise expressions that deviate in subtle ways from the style and tone of the essay KLA 504. Determine the need for conjunctions to create logical links between clauses KLA 505. Use the word or phrase most appropriate in terms of the content of the sentence when the vocabulary is uncommon
28-32	KLA 601. Revise vague, clumsy, and confusing writing involving sophisticated language KLA 602. Delete redundant and wordy material that involves fairly sophisticated language (e.g., “the outlook of an aesthetic viewpoint”) or that sounds acceptable as conversational English KLA 603. Determine the need for conjunctions to create subtle logical links between clauses KLA 604. Use the word or phrase most appropriate in terms of the content of the sentence when the vocabulary is fairly sophisticated

33-36	<p>KLA 701. Delete redundant and wordy material that involves sophisticated language or complex concepts or where the material is redundant in terms of the paragraph or essay as a whole</p> <p>KLA 702. Use the word or phrase most appropriate in terms of the content of the sentence when the vocabulary is sophisticated</p>
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ACT English Standards

Scoring Range	CONVENTIONS OF STANDARD ENGLISH GRAMMAR, USAGE, AND PUNCTUATION Sentence Structure and Formation (SST)
13-15	<p>SST 201. Determine the need for punctuation or conjunctions to join simple clauses</p> <p>SST 202. Recognize and correct inappropriate shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences</p>
16-19	<p>SST 301. Determine the need for punctuation or conjunctions to correct awkward sounding fragments and fused sentences as well as obviously faulty subordination and coordination of clauses</p> <p>SST 302. Recognize and correct inappropriate shifts in verb tense and voice when the meaning of the entire sentence must be considered</p>
20-23	<p>SST 401. Recognize and correct marked disturbances in sentence structure (e.g., faulty placement of adjectives, participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers, lack of parallelism within a simple series of verbs)</p>
24-27	<p>SST 501. Recognize and correct disturbances in sentence structure (e.g., faulty placement of phrases, faulty coordination and subordination of clauses, lack of parallelism within a simple series of phrases)</p> <p>SST 502. Maintain consistent and logical verb tense and pronoun person on the basis of the preceding clause or sentence.</p>
28-32	<p>SST 601. Recognize and correct subtle disturbances in sentence structure (e.g., dangles where the intended meaning is clear but the sentence is ungrammatical, faulty subordination and coordination of clauses in long or involved sentences)</p> <p>SST 602. Maintain consistent and logical verb tense and voice and pronoun person on the basis of the paragraph or essay as a whole</p>
33-36	<p>SST 701. Recognize and correct very subtle disturbances in sentence structure (e.g., weak conjunctions between independent clauses, run-ons that would be acceptable in conversational English, lack of parallelism within a complex series of phrases or clauses)</p>

ACT English Standards

Scoring Range	CONVENTIONS OF STANDARD ENGLISH GRAMMAR, USAGE, AND PUNCTUATION Usage Conventions (USG)
13-15	USG 201. Form the past tense and past participle of irregular but commonly used verbs USG 202. Form comparative and superlative adjectives
16-19	USG 301. Determine whether an adjective form or an adverb form is called for in a given situation USG 302. Ensure straightforward subject-verb agreement USG 303. Ensure straightforward pronoun-antecedent agreement USG 304. Use idiomatically appropriate prepositions in simple contexts USG 305. Use the appropriate word in frequently confused pairs (e.g., there and their, past and passed, led and lead)
20-23	USG 401. Use the correct comparative or superlative adjective or adverb form depending on context (e.g., “He is the oldest of my three brothers”) USG 402. Ensure subject-verb agreement when there is some text between the subject and verb USG 403. Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., long for, appeal to) USG 404. Recognize and correct expressions that deviate from idiomatic English
24-27	USG 501. Form simple and compound verb tenses, both regular and irregular, including forming verbs by using have rather than of (e.g., would have gone, not would of gone) USG 502. Ensure pronoun-antecedent agreement when the pronoun and antecedent occur in separate clauses or sentences USG 503. Recognize and correct vague and ambiguous pronouns
28-32	USG 601. Ensure subject-verb agreement in some challenging situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun) USG 602. Correctly use reflexive pronouns, the possessive pronouns its and your, and the relative pronouns who and whom USG 603. Use the appropriate word in less-common confused pairs (e.g., allude and elude)

33-36	<p>USG 701. Ensure subject-verb agreement when a phrase or clause between the subject and verb suggests a different number for the verb</p> <p>USG 702. Use idiomatically and contextually appropriate prepositions in combination with verbs in situations involving sophisticated language or complex concepts</p>
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ACT English Standards

Scoring Range	CONVENTIONS OF STANDARD ENGLISH GRAMMAR, USAGE, AND PUNCTUATION Punctuation Conventions (PUN)
13-15	PUN 201. Delete commas that create basic sense problems (e.g., between verb and direct object)
16-19	PUN 301. Delete commas that markedly disturb sentence flow (e.g., between modifier and modified element) PUN 302. Use appropriate punctuation in straightforward situations (e.g., simple items in a series)
20-23	PUN 401. Delete commas when an incorrect understanding of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) PUN 402. Delete apostrophes used incorrectly to form plural nouns PUN 403. Use commas to avoid obvious ambiguity (e.g., to set off a long introductory element from the rest of the sentence when a misreading is possible) PUN 404. Use commas to set off simple parenthetical elements
24-27	PUN 501. Delete commas in long or involved sentences when an incorrect understanding of the sentence suggests a pause that should be punctuated (e.g., between the elements of a compound subject or compound verb joined by and) PUN 502. Recognize and correct inappropriate uses of colons and semicolons PUN 503. Use punctuation to set off complex parenthetical elements PUN 504. Use apostrophes to form simple possessive nouns
28-32	PUN 601. Use commas to avoid ambiguity when the syntax or language is sophisticated (e.g., to set off a complex series of items) PUN 602. Use punctuation to set off a nonessential/nonrestrictive appositive or clause PUN 603. Use apostrophes to form possessives, including irregular plural nouns PUN 604. Use a semicolon to link closely related independent clauses
33-36	PUN 701. Delete punctuation around essential/restrictive appositives or clauses PUN 702. Use a colon to introduce an example or an elaboration

ACT English Task Sheet

Part I—Understanding the ACT English Standards and Benchmarks

- Read the ACT English Standards at the beginning of this module, annotating and highlighting as appropriate.
- Notice characteristics of the sample questions and their relationship with the standards.
- Make note of things you notice and things you wonder.

Part II—Categorizing Questions in Compliance with the Standards

- Read questions 1-5 on p. 12 in the Preparing for the ACT Booklet.
- Based on the standards categories and scoring ranges, categorize the questions with TD for Topic Development, ORG for Organization, Unity, and Clarity, KLA for Knowledge of Language, SST for Sentence Structure Formation, USG for Usage Conventions, and PUN for Punctuation Conventions. If possible, categorize to a scoring range and/or a specific standard.

Part III—Question Writing

- Write one to two sample questions for at least three categories.
- Chart your completed questions, and list the standard to which each question is connected. Provide a Tennessee Standard that is connected with your question.
- This will be part of a gallery walk at the conclusion of the module.

ACT English Task Reflection

- How can understanding the *relationship* between ACT Standards and the questions help *guide* instruction?
- Were there any surprises or “ah-ha” moments in this activity for you?
- What questions do you have about the ACT Standards and their relation to instruction in Tennessee?

ACT English Task Part Two

Part I—Integrating the Standards into Instruction

- For one or more courses in your school, compare the Tennessee State Standards to the ACT Standards.
- Look for areas of commonality *as well as* areas of difference.
- Chart the similarities and differences that you notice.

Part II—Brainstorming Instructional Strategies

- Based on the chart of your findings of commonality, discuss methods and strategies that you can use to integrate ACT standards and concepts into your instruction.
- Based on the chart of your findings of differences, discuss methods and strategies that you can use to integrate ACT standards and concepts that are not as closely connected to state standards into your instruction.
- Chart the methods and strategies that you discuss to be shared as part of the gallery walk.

ACT Reading Standards

Reminder: The ACT College Readiness Benchmark for Reading is 22. Students who achieve this score have a 50 percent likelihood of achieving a B or better in a first-year Social Science course at a typical college. Knowledge and skills highly likely to be demonstrated by students who meet the Benchmark are in bold.

Scoring Range	KEY IDEAS AND DETAILS Close Reading (CLR)
13-15	CLR 201. Locate basic facts (e.g., names, dates, events) clearly stated in a passage CLR 202. Draw simple logical conclusions about the main characters in somewhat challenging literary narratives
16-19	CLR 301. Locate simple details at the sentence and paragraph level in somewhat challenging passages CLR 302. Draw simple logical conclusions in somewhat challenging passages
20-23	CLR 401. Locate important details in somewhat challenging passages CLR 402. Draw logical conclusions in somewhat challenging passages CLR 403. Draw simple logical conclusions in more challenging passages CLR 404. Paraphrase some statements as they are used in somewhat challenging passages
24-27	CLR 501. Locate and interpret minor or subtly stated details in somewhat challenging passages CLR 502. Locate important details in more challenging passages CLR 503. Draw subtle logical conclusions in somewhat challenging passages CLR 504. Draw logical conclusions in more challenging passages CLR 505. Paraphrase virtually any statement as it is used in somewhat challenging passages CLR 506. Paraphrase some statements
28-32	CLR 601. Locate and interpret minor or subtly stated details in more challenging passages CLR 602. Locate important details in complex passages CLR 603. Draw subtle logical conclusions in more challenging passages CLR 604. Draw simple logical conclusions in complex passages CLR 605. Paraphrase virtually any statement as it is used in more challenging passages

33-36	<p>CLR 701. Locate and interpret minor or subtly stated details in complex passages</p> <p>CLR 702. Locate important details in highly complex passages</p> <p>CLR 703. Draw logical conclusions in complex passages</p> <p>CLR 704. Draw simple logical conclusions in highly complex passages</p> <p>CLR 705. Draw complex or subtle logical conclusions, often by synthesizing information from different portions of the passage</p> <p>CLR 706. Paraphrase statements as they are used in complex passages</p>
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ACT Reading Standards

Scoring Range	KEY IDEAS AND DETAILS Central Ideas, Themes, and Summaries (IDT)
13-15	IDT 201. Identify the topic of passages and distinguish the topic from the central idea or theme
16-19	IDT 301. Identify a clear central idea in straightforward paragraphs in somewhat challenging literary narratives
20-23	IDT 401. Infer a central idea in straightforward paragraphs in somewhat challenging literary narratives IDT 402. Identify a clear central idea or theme in somewhat challenging passages or their paragraphs IDT 403. Summarize key supporting ideas and details in somewhat challenging passages
24-27	IDT 501. Infer a central idea or theme in somewhat challenging passages or their paragraphs IDT 502. Identify a clear central idea or theme in more challenging passages or their paragraphs IDT 503. Summarize key supporting ideas and details in more challenging passages
28-32	IDT 601. Infer a central idea or theme in more challenging passages or their paragraphs IDT 602. Summarize key supporting ideas and details in complex passages
33-36	IDT 701. Identify or infer a central idea or theme in complex passages or their paragraphs IDT 702. Summarize key supporting ideas and details in highly complex passages

ACT Reading Standards

Scoring Range	KEY IDEAS AND DETAILS Relationships (REL)
13-15	<p>REL 201. Determine when (e.g., first, last, before, after) an event occurs in somewhat challenging passages</p> <p>REL 202. Identify simple cause-effect relationships within a single sentence in a passage</p>
16-19	<p>REL 301. Identify clear comparative relationships between main characters in somewhat challenging literary narratives</p> <p>REL 302. Identify simple cause-effect relationships within a single paragraph in somewhat challenging literary narratives</p>
20-23	<p>REL 401. Order simple sequences of events in somewhat challenging literary narratives</p> <p>REL 402. Identify clear comparative relationships in somewhat challenging passages</p> <p>REL 403. Identify clear cause-effect relationships in somewhat challenging passages</p>
24-27	<p>REL 501. Order sequences of events in somewhat challenging passages</p> <p>REL 502. Understand implied or subtly stated comparative relationships in somewhat challenging passages</p> <p>REL 503. Identify clear comparative relationships in more challenging passages</p> <p>REL 504. Understand implied or subtly stated cause-effect relationships in somewhat challenging passages</p> <p>REL 505. Identify clear cause-effect relationships in more challenging passages</p>
28-32	<p>REL 601. Order sequences of events in more challenging passages</p> <p>REL 602. Understand implied or subtly stated comparative relationships in more challenging passages</p> <p>REL 603. Identify clear comparative relationships in complex passages</p> <p>REL 604. Understand implied or subtly stated cause-effect relationships in more challenging passages</p> <p>REL 605. Identify clear cause-effect relationships in complex passages</p>
33-36	<p>REL 701. Order sequences of events in complex passages</p> <p>REL 702. Understand implied or subtly stated comparative relationships in complex passages</p> <p>REL 703. Identify clear comparative relationships in highly complex passages</p> <p>REL 704. Understand implied or subtly stated cause-effect relationships in complex passages</p> <p>REL 705. Identify clear cause-effect relationships in highly complex passages</p>

ACT Reading Standards

Scoring Range	CRAFT AND STRUCTURE Word Meanings and Word Choice (WME)
13-15	WME 201. Understand the implication of a familiar word or phrase and of simple descriptive language
16-19	WME 301. Analyze how the choice of a specific word or phrase shapes meaning or tone in somewhat challenging passages when the effect is simple WME 302. Interpret basic figurative language as it is used in a passage
20-23	WME 401. Analyze how the choice of a specific word or phrase shapes meaning or tone in somewhat challenging passages WME 402. Interpret most words and phrases as they are used in somewhat challenging passages, including determining technical, connotative, and figurative meanings
24-27	WME 501. Analyze how the choice of a specific word or phrase shapes meaning or tone in somewhat challenging passages when the effect is subtle WME 502. Analyze how the choice of a specific word or phrase shapes meaning or tone in more challenging passages WME 503. Interpret virtually any word or phrase as it is used in somewhat challenging passages, including determining technical, connotative, and figurative meanings WME 504. Interpret most words and phrases as they are used in more challenging passages, including determining technical, connotative, and figurative meanings
28-32	WME 601. Analyze how the choice of a specific word or phrase shapes meaning or tone in complex passages WME 602. Interpret virtually any word or phrase as it is used in more challenging passages, including determining technical, connotative, and figurative meanings WME 603. Interpret words and phrases in a passage that makes consistent use of figurative, general academic, domain-specific, or otherwise difficult language
33-36	WME 701. Analyze how the choice of a specific word or phrase shapes meaning or tone in passages when the effect is subtle or complex WME 702. Interpret words and phrases as they are used in complex passages, including determining technical, connotative, and figurative meanings WME 703. Interpret words and phrases in a passage that makes extensive use of figurative, general academic, domain-specific, or otherwise difficult language

ACT Reading Standards

Scoring Range	CRAFT AND STRUCTURE Text Structure (TST)
13-15	TST 201. Analyze how one or more sentences in passages relate to the whole passage when the function is stated or clearly indicated
16-19	ST 301. Analyze how one or more sentences in somewhat challenging passages relate to the whole passage when the function is simple TST 302. Identify a clear function of straightforward paragraphs in somewhat challenging literary narratives
20-23	TST 401. Analyze how one or more sentences in somewhat challenging passages relate to the whole passage TST 402. Infer the function of straightforward paragraphs in somewhat challenging literary narratives TST 403. Identify a clear function of paragraphs in somewhat challenging passages TST 404. Analyze the overall structure of somewhat challenging passages
24-27	TST 501. Analyze how one or more sentences in somewhat challenging passages relate to the whole passage when the function is subtle TST 502. Analyze how one or more sentences in more challenging passages relate to the whole passage TST 503. Infer the function of paragraphs in somewhat challenging passages TST 504. Identify a clear function of paragraphs in more challenging passages TST 505. Analyze the overall structure of more challenging passages
28-32	TST 601. Analyze how one or more sentences in complex passages relate to the whole passage TST 602. Infer the function of paragraphs in more challenging passages TST 603. Analyze the overall structure of complex passages
33-36	TST 701. Analyze how one or more sentences in passages relate to the whole passage when the function is subtle or complex TST 702. Identify or infer the function of paragraphs in complex passages TST 703. Analyze the overall structure of highly complex passages

ACT Reading Standards

Scoring Range	CRAFT AND STRUCTURE Purpose and Point of View (PPV)
13-15	PPV 201. Recognize a clear intent of an author or narrator in somewhat challenging literary narratives
16-19	PPV 301. Recognize a clear intent of an author or narrator in somewhat challenging passages
20-23	PPV 401. Identify a clear purpose of somewhat challenging passages and how that purpose shapes content and style PPV 402. Understand point of view in somewhat challenging passages
24-27	PPV 501. Infer a purpose in somewhat challenging passages and how that purpose shapes content and style PPV 502. Identify a clear purpose of more challenging passages and how that purpose shapes content and style PPV 503. Understand point of view in more challenging passages
28-32	PPV 601. Infer a purpose in more challenging passages and how that purpose shapes content and style PPV 602. Understand point of view in complex passages
33-36	PPV 701. Identify or infer a purpose in complex passages and how that purpose shapes content and style PPV 702. Understand point of view in highly complex passages

ACT Reading Standards

Scoring Range	INTEGRATION OF KNOWLEDGE AND IDEAS Arguments (ARG)
13-15	ARG 201. Analyze how one or more sentences in passages offer reasons for or support a claim when the relationship is clearly indicated
16-19	ARG 301. Analyze how one or more sentences in somewhat challenging passages offer reasons for or support a claim when the relationship is simple
20-23	ARG 401. Analyze how one or more sentences in somewhat challenging passages offer reasons for or support a claim ARG 402. Identify a clear central claim in somewhat challenging passages
24-27	ARG 501. Analyze how one or more sentences in more challenging passages offer reasons for or support a claim ARG 502. Infer a central claim in somewhat challenging passages ARG 503. Identify a clear central claim in more challenging passages
28-32	ARG 601. Analyze how one or more sentences in complex passages offer reasons for or support a claim ARG 602. Infer a central claim in more challenging passages
33-36	ARG 701. Analyze how one or more sentences in passages offer reasons for or support a claim when the relationship is subtle or complex ARG 702. Identify or infer a central claim in complex passages ARG 703. Identify a clear central claim in highly complex passages

ACT Reading Standards

Scoring Range	INTEGRATION OF KNOWLEDGE AND IDEAS Multiple Texts (SYN)
13-15	SYN 201. Make simple comparisons between two passages
16-19	SYN 301. Make straightforward comparisons between two passages
20-23	SYN 401. Draw logical conclusions using information from two literary narratives
24-27	SYN 501. Draw logical conclusions using information from two informational texts
28-32	SYN 601. Draw logical conclusions using information from multiple portions of two literary narratives
33-36	SYN 701. Draw logical conclusions using information from multiple portions of two informational texts

ACT Reading Task Sheet

Part I—Understanding the ACT Reading Standards and Benchmarks

- Read the ACT Reading Standards at the beginning of this module, annotating and highlighting as appropriate.
- Notice characteristics of the sample questions and their relationship with the standards.
- Make note of things you notice and things you wonder.

Part II—Categorizing Questions in Compliance with the Standards

- Read questions 1-5 on page 33 in the Preparing for the ACT Booklet. The questions correspond to the passage on p. 32.
- Based on the standards categories and scoring ranges, categorize the questions with CLR for Close Reading, IDT for Central Ideas, Themes, and Summaries, REL for Relationships, WME for Word Meanings and Choice, TST for Text Structure, PPV for Point of View, ARG for Arguments, and SYN for Multiple Texts. If possible, categorize to a scoring range and/or a specific standard.

Part III—Question Writing

- Write one sample question for at least four of the Standards categories.
- Chart your completed questions, and list the standard to which each question is connected. Provide a Tennessee Standard that is connected with your question.
- This will be part of a gallery walk at the conclusion of the module.

ACT Reading Task Reflection

- How can understanding the *relationship* between ACT Standards and the questions help *guide* instruction?
- Were there any surprises or “ah-ha” moments in this activity for you?
- What questions do you have about the ACT Standards and their relation to instruction in Tennessee?

ACT Reading Task Part Two

Part I—Integrating the Standards into Instruction

- For one or more courses in your school, compare the Tennessee State Standards to the ACT Standards.
- Look for areas of commonality *as well as* areas of difference.
- Chart the similarities and differences that you notice.

Part II—Brainstorming Instructional Strategies

- Based on the chart of your findings of commonality, discuss methods and strategies that you can use to integrate ACT standards and concepts into your instruction.
- Based on the chart of your findings of differences, discuss methods and strategies that you can use to integrate ACT standards and concepts that are not as closely connected to state standards into your instruction.
- Chart the methods and strategies that you discuss to be shared as part of the gallery walk.

ACT Science Standards

Reminder: The ACT College Readiness Benchmark for Science is 23. Students who achieve this score have a 50 percent likelihood of achieving a B or better in a first-year Biology course at a typical college. Knowledge and skills highly likely to be demonstrated by students who meet the Benchmark are in bold.

Scoring Range	Interpretation of Data (IOD)
13-15	IOD 201. Select one piece of data from a simple data presentation (e.g., a simple food web diagram) IOD 202. Identify basic features of a table, graph, or diagram (e.g., units of measurement) IOD 203. Find basic information in text that describes a simple data presentation
16-19	IOD 301. Select two or more pieces of data from a simple data presentation IOD 302. Understand basic scientific terminology IOD 303. Find basic information in text that describes a complex data presentation IOD 304. Determine how the values of variables change as the value of another variable changes in a simple data presentation
20-23	IOD 401. Select data from a complex data presentation (e.g., a phase diagram) IOD 402. Compare or combine data from a simple data presentation (e.g., order or sum data from a table) IOD 403. Translate information into a table, graph, or diagram IOD 404. Perform a simple interpolation or simple extrapolation using data in a table or graph
24-27	IOD 501. Compare or combine data from two or more simple data presentations (e.g., categorize data from a table using a scale from another table) IOD 502. Compare or combine data from a complex data presentation IOD 503. Determine how the values of variables change as the value of another variable changes in a complex data presentation IOD 504. Determine and/or use a simple (e.g., linear) mathematical relationship that exists between data IOD 505. Analyze presented information when given new, simple information

28-32	<p>IOD 601. Compare or combine data from a simple data presentation with data from a complex data presentation</p> <p>IOD 602. Determine and/or use a complex (e.g., nonlinear) mathematical relationship that exists between data</p> <p>IOD 603. Perform a complex interpolation or complex extrapolation using data in a table or graph</p>
33-36	<p>IOD 701. Compare or combine data from two or more complex data presentations</p> <p>IOD 702. Analyze presented information when given new, complex information</p>

ACT Science Standards

Scoring Range	Scientific Investigation (SIN)
13-15	<p>SIN 201. Find basic information in text that describes a simple experiment</p> <p>SIN 202. Understand the tools and functions of tools used in a simple experiment</p>
16-19	<p>SIN 301. Understand the methods used in a simple experiment</p> <p>SIN 302. Understand the tools and functions of tools used in a complex experiment</p> <p>SIN 303. Find basic information in text that describes a complex experiment</p>
20-23	<p>SIN 401. Understand a simple experimental design</p> <p>SIN 402. Understand the methods used in a complex experiment</p> <p>SIN 403. Identify a control in an experiment</p> <p>SIN 404. Identify similarities and differences between experiments</p> <p>SIN 405. Determine which experiments utilized a given tool, method, or aspect of design</p>
24-27	<p>SIN 501. Understand a complex experimental design</p> <p>SIN 502. Predict the results of an additional trial or measurement in an experiment</p> <p>SIN 503. Determine the experimental conditions that would produce specified results</p>
28-32	<p>SIN 601. Determine the hypothesis for an experiment</p> <p>SIN 602. Determine an alternate method for testing a hypothesis</p>
33-36	<p>SIN 701. Understand precision and accuracy issues</p> <p>SIN 702. Predict the effects of modifying the design or methods of an experiment</p> <p>SIN 703. Determine which additional trial or experiment could be performed to enhance or evaluate experimental results</p>

ACT Science Standards

Scoring Range	Evaluation of Models, Inferences, and Experimental Results (EMI)
13-15	EMI 201. Find basic information in a model (conceptual)
16-19	EMI 301. Identify implications in a model EMI 302. Determine which models present certain basic information
20-23	EMI 401. Determine which simple hypothesis, prediction, or conclusion is, or is not, consistent with a data presentation, model, or piece of information in text EMI 402. Identify key assumptions in a model EMI 403. Determine which models imply certain information EMI 404. Identify similarities and differences between models
24-27	EMI 501. Determine which simple hypothesis, prediction, or conclusion is, or is not, consistent with two or more data presentations, models, and/or pieces of information in text EMI 502. Determine whether presented information, or new information, supports or contradicts a simple hypothesis or conclusion, and why EMI 503. Identify the strengths and weaknesses of models EMI 504. Determine which models are supported or weakened by new information EMI 505. Determine which experimental results or models support or contradict a hypothesis, prediction, or conclusion
28-32	EMI 601. Determine which complex hypothesis, prediction, or conclusion is, or is not, consistent with a data presentation, model, or piece of information in text EMI 602. Determine whether presented information, or new information, supports or weakens a model, and why EMI 603. Use new information to make a prediction based on a model
33-36	EMI 701. Determine which complex hypothesis, prediction, or conclusion is, or is not, consistent with two or more data presentations, models, and/or pieces of information in text EMI 702. Determine whether presented information, or new information, supports or contradicts a complex hypothesis or conclusion, and why

ACT Science Standards

ACT College and Career Readiness Standards for Science are measured in rich and authentic contexts based on science content that students encounter in science courses. This content includes:

Life Science/Biology			
<ul style="list-style-type: none"> • Animal behavior • Animal development and growth • Body systems 	<ul style="list-style-type: none"> • Cell structure and processes • Ecology • Evolution • Genetics • Homeostasis 	<ul style="list-style-type: none"> • Life cycles • Molecular basis of heredity • Origin of life • Photosynthesis 	<ul style="list-style-type: none"> • Plant development, growth, structure • Populations • Taxonomy
Physical Science/Chemistry, Physics			
<ul style="list-style-type: none"> • Atomic structure • Chemical bonding, equations, nomenclature, reactions • Electrical circuits 	<ul style="list-style-type: none"> • Elements, compounds, mixtures • Force and motions • Gravitation • Heat and work 	<ul style="list-style-type: none"> • Kinetic and potential energy • Magnetism • Momentum • The periodic table • Properties of solutions 	<ul style="list-style-type: none"> • Sound and light • States, classes, and properties of matter • Waves
Earth and Space Science			
<ul style="list-style-type: none"> • Earthquakes and volcanoes • Earth's atmosphere • Earth's resources • Fossils and geological time 	<ul style="list-style-type: none"> • Geochemical cycles • Groundwater • Lakes, rivers, oceans • Mass movements 	<ul style="list-style-type: none"> • Plate tectonics • Rocks, minerals • Solar system • Stars, galaxies, and the universe 	<ul style="list-style-type: none"> • Water cycle • Weather and climate • Weathering and erosion

ACT Science Task Sheet

Part I—Understanding the ACT Science Standards and Benchmarks

- Read the ACT Science Standards at the beginning of this module, annotating and highlighting as appropriate.
- Notice characteristics of the sample questions and their relationship with the standards.
- Make note of things you notice and things you wonder.

Part II—Categorizing Questions in Compliance with the Standards

- Read questions 1-5 on pages 40-41 in the Preparing for the ACT Booklet.
- Based on the standards categories and scoring ranges, categorize the questions with IOD for Interpretation of Data, SIN for Scientific Investigation, and EMI for Evaluation of Models, Inferences, and Experimental Results. If possible, categorize to a scoring range and/or a specific standard.

Part III—Question Writing

- Write at least one sample question for each of the three categories.
- Chart your completed questions, and list the standard to which each question is connected. Provide a Tennessee Standard that is connected with your question.
- These questions will be part of a gallery walk at the conclusion of the module.

ACT Science Task Reflection

- How can understanding the *relationship* between ACT Standards and the questions help *guide* instruction?
- Were there any surprises or “ah-ha” moments in this activity for you?
- What questions do you have about the ACT Standards and their relation to instruction in Tennessee?

ACT Science Task Part Two

Part I—Integrating the Standards into Instruction

- For one or more courses in your school, compare the Tennessee State Standards to the ACT Standards.
- Look for areas of commonality *as well as* areas of difference.
- Chart the similarities and differences that you notice.

Part II—Brainstorming Instructional Strategies

- Based on the chart of your findings of commonality, discuss methods and strategies that you can use to integrate ACT standards and concepts into your instruction.
- Based on the chart of your findings of differences, discuss methods and strategies that you can use to integrate ACT standards and concepts that are not as closely connected to state standards into your instruction.
- Chart the methods and strategies that you discuss to be shared as part of the gallery walk.

Culminating Gallery Walk

Part I

- Gather your findings from the previous tasks.
- Charts for your group should include noticings about the standards, questions written by the group including links to Tennessee and ACT standards, and instructional strategies discussed by your group to integrate ACT aligned questions into classroom instruction.

Part II

- Rotate to other groups' charts.
- Using post-it notes, leave feedback for anything that you notice. This could include questions you have, suggestions for revision, or compliments for great ideas.

Whole Group Discussion

- Share your methods and strategies that you discussed in your small group. How can you integrate ACT skills into your instruction without sacrificing content instruction?
- What action steps will you take in your classroom based on this discussion?

Add changes you want to make to your daily instruction to your action plan in Module 1 on p. 37.

Critical Connections

- ACT Benchmarks connect with ACT Standards to provide a list of skills that students should master to be college and career ready.
- Many Tennessee State Standards and ACT Standards have key similarities.
- As educators, we have the opportunity to increase the rigor of our classroom instruction to help our students become college and career ready.
- Many content strands that you already teach can be slightly modified to increase student college and career readiness.



Key Idea #8



All content in the ACT standards is covered in our Tennessee state standards, but some topics may require spiraling or revisiting during **instruction**, especially in higher grade levels.



Key Idea #9



There are simple things you can do in daily instruction, such as ensuring you are asking questions similar to the ACT, to improve student **readiness**.

Closing Reflection:

What are your most important takeaways about each key idea from today? How can you apply the Key Ideas to your current role in your school? What questions do you still have?

Key Idea	Your Takeaways
Key Idea #7 Literacy across all content areas is extremely important to improving ACT scores and ensuring our students are prepared for whatever pathway they choose.	
Key Idea #8 All content in the ACT standards is covered in our Tennessee state standards, but some topics may require spiraling or revisiting during instruction , especially in higher grade levels.	
Key Idea #9 There are simple things you can do in daily instruction, such as ensuring you are asking questions similar to the ACT, to improve student readiness .	

Module 4:
Guiding Students toward Readiness
[TAB PAGE]

Module 4: Guiding Students toward Readiness

Objectives

- Unpack a sample ACT school data report and a sample ACT student report, accurately interpret results, and assist in both individual student and school-wide goal setting
- Review the four-year, focused plan of study and support the development (or revision) of a four-year plan *with* (not *for*) an individual student
- Develop understanding of the variety of early postsecondary opportunities and postsecondary preparation resources available to students and be able to accurately provide appropriate information for student planning

Review: How do we define postsecondary readiness and success?

In earlier modules, we have discussed readiness versus preparedness. Postsecondary readiness means being ready to enroll and participate in a range of postsecondary opportunities: postsecondary training, one-year technical certificate programs through a Tennessee College of Applied Technology (TCAT), two year credentials and degrees, as well as four year colleges. Entering the military or directly enrolling in a technical apprentice training program requires a similar level of readiness.

Students that do not take advantage of postsecondary opportunities have an average salary of just over \$9,000, meaning they are not only limited in their growth in occupation, but aren't even obtaining a life-sustaining wage.

State Postsecondary Successes

- On May 1, 2015, Tennessee Higher Education Commission hosts Tennessee's first statewide College Signing Day in nearly 20 high schools across Tennessee (*THEC*).
- By the end of August 2015, 50,611 high school seniors filed a FAFSA. Tennessee is the number one state for FAFSA filing, with a filing rate of 68 percent of high school seniors (*THEC*).
- In September 2015, 271 schools participate in Tennessee's eighth annual College Application Week, building excitement around the college going process (*THEC*).
- Sixty percent of high school graduates enroll in postsecondary education (*Tennessee Succeeds*).
- Successes from the governor's Drive to 55 effort include an unprecedented 4.5 percentage point increase in postsecondary enrollment for the class of 2015 compared to the previous year's graduates and a phenomenal 10.1 percent growth in first-time freshman enrollment at Tennessee's public postsecondary institutions (*ECD, UTK*).

State Postsecondary Challenges

- Among students from the graduating class of 2015, of the 12 percent of students who took Advanced Placement (AP) tests for early postsecondary credit, only half earned a passing score (*Tennessee Succeeds*).
- For the graduating class of 2015, of the original TN Promise applicant pool of 58,000, 35 percent missed the February 15 deadline to file their FAFSA, thereby losing their TN Promise eligibility (*Commercial Appeal, March 6 2015*)
- For the graduating Class of 2015 (including both public and private school students), the percent of Tennessee students ready for college-level coursework (meeting all four of the ACT benchmarks for college readiness) was 20 percent. (*ACT State Report, 2015*)
- Of the nearly 60 percent of high school graduates enrolling in postsecondary, only 24 percent complete (*Tennessee Succeeds*).
- Almost 60 percent of first-time freshmen in Tennessee postsecondary institutions required at least one remedial or developmental course (*Tennessee Succeeds*).

Reflection:

- Twelve percent of students from the Class of 2015 took Advanced Placement (AP) classes. Of that, only half of them earned a passing grade (3 or higher). Should more students take AP classes? Imagine the conversation with a student (or a parent) regarding AP classes, AP scores (1-5 scale). What are some strategies to help students prepare for AP classes? What are obstacles to readiness for AP classes?
- Only 24% of the 60% of our high school graduates enrolling in postsecondary complete a degree program within six years. What are some of the reasons students may not finish their credentials? What, if any, of these reasons can we address strategically while our students are still in our high schools?
- At a building level, how might the successes and challenges outlined above affect your students' ability to successfully access information about postsecondary and influence their planning? Does your school participate in College Application Week or College Signing Day? If not, identify a team or individual (counselor, teacher, club, PTA) who can execute the event.

What is the Condition of College and Career Readiness in Tennessee?

Independently read the excerpts below from key findings from ACT's report, *The Condition of College & Career Readiness 2015 Tennessee*. As you read, underline key ideas and make note of any questions or discussion points. After you finish reading, report and reflect at your table on key ideas.

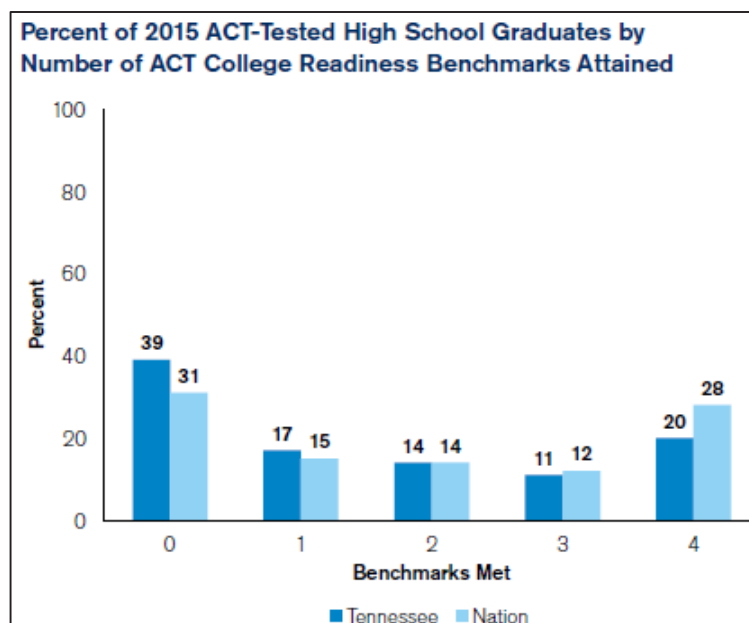
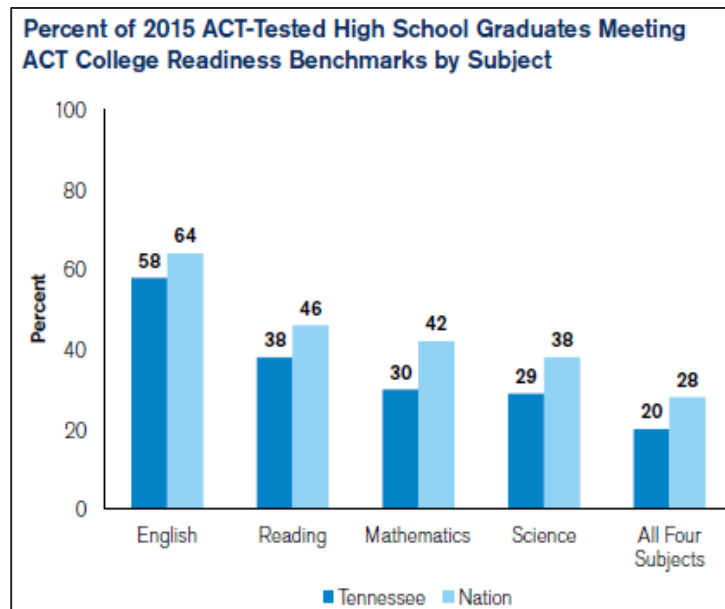
The Condition of College & Career Readiness 2015 Tennessee

About your Graduating Class

In Tennessee, there were 68,737 students in the 2015 graduating class who took the ACT. This report represents a significant portion of the student population. This also means that Tennessee tested more than just a college-bound population, which ACT research has shown to be associated with low overall academic achievement levels. Tennessee's ACT-tested graduating class has 22 percent potential first generation students, or students who did not enroll in postsecondary education. This compares to 18 percent of ACT-tested graduates nationwide.

Opportunity for Growth

Tennessee has a good opportunity to improve on the college and career readiness of its students, especially in English, reading and science, where at least 10 percent of the students were only one or two points below the Benchmark. ACT research has shown those students meeting three or four ACT College Readiness benchmarks are likely to be successful in postsecondary education. For Tennessee, this means that the 30 percent who met three or four ACT College Readiness Benchmarks have a strong likelihood of experiencing success in college. A great way to improve students' college and career readiness is to get more of them to take a college preparatory core curriculum. In fact, Tennessee saw 34 percent of core-taking students meet the math ACT College Readiness Benchmarks, compared to 22 percent of non-core-taking students meeting the Benchmark. In this graduating class, 22 percent of Tennessee's ACT-tested graduates reported they did not plan to take a core curriculum, which means that 15,173 more students could have benefitted from more rigorous coursework, presenting a real opportunity for improvement in college and career readiness.



Student Aspirations

There is good news in that 84 percent of Tennessee's 2015 ACT-tested graduates aspired to postsecondary education. Interestingly enough, 84 percent of Tennessee's 2013 ACT-tested graduating class aspired to enroll in postsecondary education, compared to the 57 percent who did actually enroll. If we fully closed the aspirational gap, an additional 18,898 of the 2014 ACT-tested graduates from Tennessee would have enrolled in secondary education.

What Affects Students' Success?

ACT research (*Broadening the Definition of College and Career Readiness: A Holistic Approach*, 2014; *Beyond Academics: A Holistic Framework for Enhancing Education and Workforce Success*, 2015) demonstrates that while academically prepared students, as measured by the ACT College Readiness Benchmarks, are more likely than less-prepared students to succeed in their future educational endeavors, there are other factors that impact student success. They fall into four domains:

- **Core academic skills** include the domain-specific knowledge and skills necessary to perform essential tasks in the core academic content areas of English language arts, mathematics, and science.
- **Crosscutting capabilities** include the general knowledge and skills necessary to perform essential tasks across academic content areas. This includes technology and information literacy, collaborative problem solving, thinking and metacognition, and studying and learning.
- **Behavioral skills** include interpersonal, self-regulatory, and task-related behaviors important for adaptation to and successful performance in educational and workplace settings.
- **Education and career navigation** skills include the personal characteristics, processes, and knowledge that influence individuals as they navigate their educational and career paths (e.g., make informed, personally relevant decisions; develop actionable, achievable plans).

In the squares below, record your reflections:

<p>About the 2015 Graduating Class:</p>	<p>Opportunities for Growth:</p>
<p>Student Aspirations:</p>	<p>What Impacts Student Success:</p>
<p>Students Meeting Benchmarks (two graphs):</p>	

ACT College Readiness Benchmark Attainment for Top Planned College Majors: 2015 Graduates

When students register for the ACT, they can select a college major—from a list of 294 majors—that they plan to pursue in college. Among recent ACT-tested high school graduates nationwide, about 80 percent selected a specific planned major, whereas about 20 percent indicated that they were undecided or did not select a major.

The table on the next page ranks the state’s top (most frequently selected) majors among 2015 graduates. The percentages of students meeting the ACT College Readiness Benchmarks are shown for each major. Across these planned majors, there are considerable differences in the percentage of students who are ready to succeed in college.

Activity:

This data is available for your high school, and is released by ACT in the late summer. In the grid below, write down four items from the table that are meaningful to you. Begin with “no major indicated” and pick three other majors. How might you use the data from these four items at your school? Who would benefit from having access to this data?

No Major indicated:	

Planned College Major of Tennessee 2015 Graduates

Major Name	N	English	Reading	Math	Science	All Four
No Major Indicated	9,140	30	19	11	12	6
Undecided	7,599	66	46	36	35	25
Nursing, Registered (BS/RN)	3,632	60	34	21	21	13
Medicine (Pre-Medicine)	2,129	85	66	58	57	44
Business Administration and Management, General	1,660	65	43	35	34	23
Mechanical Engineering	1,131	59	42	46	41	31
Physical Therapy (Pre-Physical Therapy)	950	66	40	35	32	21
Criminology	870	54	31	18	20	9
Law (Pre-Law)	868	65	46	33	34	24
Engineering (Pre-Engineering), General	845	69	52	55	52	40
Biology, General	787	82	62	50	50	38
Veterinary Medicine (Pre-Veterinarian)	720	69	46	33	34	23
Accounting	704	66	44	44	38	26
Psychology, Clinical and Counseling	695	75	51	32	34	23
Computer Science and Programming	679	77	59	52	53	39
Nursing, Practical/Vocational (LPN)	652	39	19	13	14	8
Pharmacy (Pre-Pharmacy)	652	76	50	48	43	31
Music, General	645	58	36	26	25	16
Music, Performance	641	61	38	27	28	19
Therapy and Rehabilitation, General	639	67	35	27	26	13
Athletic Training	635	54	28	25	25	15
Elementary Education	557	70	39	25	25	13
Graphic Design	519	56	35	22	23	12
Health-Related Professions and Services, General	514	71	42	36	34	20
Health/Medical Technology, General	494	62	40	26	26	16
Medical Assisting	493	41	22	14	15	8
Computer Engineering	453	66	48	47	46	34
Psychology, General	445	79	56	33	37	25
Small Business Management/Operations	430	51	31	21	23	12
Theatre Arts/Drama	420	66	49	29	34	22

Note: *Undecided* and/or *No Major Indicated* are included in the table, if applicable. The former refers to students who selected the option *Undecided* from the list of majors. The latter refers to students who did not respond to the question.

ACT College Readiness Benchmark Attainment for the Top Planned College Majors with Good Fit: 2015 Graduates

Many students gravitate toward majors that align with their preferred activities and values. ACT research has shown that greater interest-major is related to important student outcomes such as persistence in a major or college.

The table on the next page shows, for each planned major, the numbers and percentages of students displaying good interest-major fit, as well as the percentages of students meeting with ACT College Readiness Benchmarks. Since only students who complete the ACT interest inventory during ACT registration are included here, this table shows results for a subset of the students in the prior table. These planned majors vary considerably in the percentage of students displaying good interest-major fit and meeting the ACT College Readiness Benchmarks. The results highlight the importance of examining multiple predictors of college success and affirm the value of a holistic view of college readiness.

Tennessee 2015 Graduates Interest-Major Fit

Major Name	N Fit	% Fit	English	Reading	Math	Science	All Four
No Major Indicated			No profile available				
Undecided			No profile available				
Nursing, Registered (BS/RN)	947	26	68	38	25	27	16
Medicine (Pre-Medicine)	951	45	89	70	61	61	48
Business Administration and Management, General	517	31	70	47	39	39	27
Mechanical Engineering	365	32	61	44	47	43	33
Physical Therapy (Pre-Physical Therapy)	216	23	75	46	44	37	25
Criminology	105	12	70	42	21	31	12
Law (Pre-Law)	282	32	79	57	41	43	29
Engineering (Pre-Engineering), General	288	34	69	53	59	54	40
Biology, General	371	47	87	68	54	57	43
Veterinary Medicine (Pre-Veterinarian)	286	40	77	50	33	38	23
Accounting	360	51	71	45	46	38	27
Psychology, Clinical and Counseling	119	17	82	61	32	36	23
Computer Science and Programming	204	30	81	66	61	59	46
Nursing, Practical/Vocational (LPN)	126	19	55	29	20	22	11
Pharmacy (Pre-Pharmacy)	233	36	81	52	56	49	36
Music, General	283	44	70	42	28	26	18
Music, Performance	265	41	68	41	28	30	20
Therapy and Rehabilitation, General	136	21	77	47	27	32	15
Athletic Training	85	13	65	40	29	29	21
Elementary Education	126	23	77	47	26	31	15
Graphic Design	215	41	61	40	22	22	13
Health-Related Professions and Services, General			No profile available				
Health/Medical Technology, General	148	30	68	48	35	33	23
Medical Assisting	125	25	53	26	19	23	11
Computer Engineering	143	32	75	51	53	55	41
Psychology, General	101	23	86	59	37	38	27
Small Business Management/Operations	66	15	58	38	26	27	18
Theatre Arts/Drama	194	46	75	56	31	39	24

Note: Undecided and/or No Major Indicated are included in the table, if applicable. The former refers to students who selected the option Undecided from the list of majors. The latter refers to students who did not respond to the question.

Activity

Examine the distribution of planned educational major for all students by all college plans on the previous page. Review the score ranges as if they represented your school. Then at your table, answer the following questions. One person will report to the group as a whole.

- What major categories has the greatest student fit? How does this compare to the number meeting the benchmarks in each category?
- Opportunities for careers in the Health Science careers are expected to grow. How would you begin the conversation with students who indicate they are interested in careers in the health sciences, but are not meeting the benchmarks for college/ career readiness?
- Pick a major in which students are least ready to meet their educational majors. If these were students at your school, what strategies might you employ to increase students' readiness and awareness of career opportunities?

How to access and use ACT Reports at your School

In the summer of each year, ACT releases state, district, and school level scores. These reports compare the most recent results for the graduating class, as well as five year trends. The state reports below are samples of individual school reports sent to your school. For the purposes of our discussion we will treat these reports as individual school reports rather than state reports.

- ACT Profile Report, State Graduating Class 2014, Tennessee.

Table 1.1. Five Year Trends—Percent of Students Who Met College Readiness Benchmarks

Year	Number of Students Tested		Percent Who Met Benchmarks							
			English		Mathematics		Reading		Science	
	State	National	State	National	State	National	State	National	State	National
2010	66,552	1,568,835	59	66	27	43	43	52	20	29
2011	68,524	1,623,112	58	66	27	45	41	52	20	30
2012	68,095	1,666,017	59	67	29	46	43	52	21	31
2013	69,641	1,799,243	58	64	29	44	36	44	27	36
2014	69,505	1,845,787	59	64	30	43	37	44	28	37
									16	24
									15	25
									16	25
									18	26
									19	26

Table 1.2. Five Year Trends—Average ACT Scores

Year	Number of Students Tested		Average ACT Scores							
			English		Mathematics		Reading		Science	
	State	National	State	National	State	National	State	National	State	National
2010	66,552	1,568,835	19.4	20.5	19.0	21.0	19.9	21.3	19.6	20.9
2011	68,524	1,623,112	19.4	20.6	19.0	21.1	19.7	21.3	19.4	20.9
2012	68,095	1,666,017	19.6	20.5	19.1	21.1	19.9	21.3	19.6	20.9
2013	69,641	1,799,243	19.3	20.2	19.1	20.9	19.8	21.1	19.4	20.7
2014	69,505	1,845,787	19.6	20.3	19.2	20.9	20.1	21.3	19.6	20.8
									19.6	21.0
									19.5	21.1
									19.7	21.1
									19.5	20.9
									19.8	21.0

Table 1.3. Five Year Trends—Average ACT Scores Nationwide

Year	Number of Students Tested		Average ACT Scores Nationwide							
			English		Mathematics		Reading		Science	
	State	National	State	National	State	National	State	National	State	National
2010	1,568,835		20.5		21.0		21.3		20.9	
2011	1,623,112		20.6		21.1		21.3		20.9	
2012	1,666,017		20.5		21.1		21.3		20.9	
2013	1,799,243		20.2		20.9		21.1		20.7	
2014	1,845,787		20.3		20.9		21.3		20.8	
									21.0	
									21.1	
									21.1	
									20.9	
									21.0	

- ACT Profile Report, State Graduating Class 2014, Tennessee.

Discussion in Group 1:

The tables 1.1, 1.2, and 1.3 report state five-year trends for percent of students who met the college readiness benchmarks, average ACT scores, and average ACT scores nationwide. Your school will receive a report based on your students' ACT scores and will also report five-year trends. Review the executive summary presented in the table above, and reflect with a table partner:

- Have you seen this data? How is this data shared at the building level? How could it be shared at the building level? How could the data impact instruction or build capacity for postsecondary preparedness?
- What data stands out to you?
- What data concerns you?
- What student accomplishments can be highlighted?
- Based on this data, what goals might be set for growth?

Gallery Walk

To prepare for the gallery walk, please capture the following on chart paper:

- 1) What data is included in this section of the report?
- 2) Why is this data important?
- 3) What can an educator do to assist with using this data at the school level?

Table 2.6. Percent of Students in College Readiness Standards (CRS) Score Ranges

Student Group	CRS Range	English		Mathematics		Reading		Science	
		N	%	N	%	N	%	N	%
State	33 to 36	3,157	5	994	1	2,600	4	1,275	2
	28 to 32	6,057	9	3,656	5	7,557	11	3,349	5
	24 to 27	9,838	14	9,918	14	8,395	12	10,918	16
	20 to 23	15,754	23	11,582	17	15,723	23	19,107	27
	16 to 19	12,867	19	27,353	39	16,736	24	19,536	28
	13 to 15	10,821	16	15,197	22	11,242	16	9,148	13
	01 to 12	11,011	16	805	1	7,252	10	8,172	9
National	33 to 36	92,922	5	55,103	3	97,714	5	55,222	3
	28 to 32	185,768	10	174,260	9	257,722	14	128,357	7
	24 to 27	302,723	16	383,630	21	263,034	14	367,160	20
	20 to 23	431,178	23	336,283	18	445,726	24	542,581	29
	16 to 19	330,518	18	616,601	33	409,685	22	448,064	24
	13 to 15	264,127	14	266,401	14	240,948	13	186,262	10
	01 to 12	238,551	13	13,509	1	130,958	7	118,141	6

- ACT Profile Report, State Graduating Class 2014, Tennessee.

Discussion in Group 2:

The table above (2.6) illustrates the percent of student in college readiness standards (CRS) score ranges. Review the score ranges as if they represented a single school.

- Which ACT CRS range are the majority of our students?
- Which CRS range of students could be identified to move towards the CRS benchmarks?
How would the conversation look with these students?

Beginning in the 2016 school year, there are two new district accountability goals:

1. Decreasing the percentage of students that are below basic– or, moving students from below a 19 to a 19 or above; and
2. Increasing the percentage of students who are at proficiency– or, moving students to a 21 or above.

If you wanted to improve performance at your school in a specific subject area, based on the data provide in this table, which group of students would you target? Which staff members would be on the team to work with these students?

Given these score ranges, where are your students *most* proficient? How would the postsecondary conversation begin with these students? What do you need to know about postsecondary opportunities to have a meaningful conversation? What behavioral skills are needed for greater chances of postsecondary success?

Given these score ranges, where are your students *least* proficient? How would the postsecondary conversation begin with these students? What do you need to know about postsecondary opportunities to have a meaningful conversation? What behavioral skills are needed for greater chances of postsecondary success?

Gallery Walk

To prepare for the gallery walk, please capture the following on chart paper:

- 1) What data is included in this section of the report?
- 2) Why is this data important?
- 3) What can an educator do to assist with using this data at the school level?

Table 4.3. Students' Score Report Preferences at Time of Testing

Name	State	Number of Students		Percent of Students in College Readiness Standards Ranges									
		Total	1st Choice	2nd-8th Choice	01-12	13-15	16-19	20-23	24-27	28-32	33-36		
UNIVERSITY OF TENNESSEE-KNOXVILLE	Tennessee	13,183	4,913	8,280	1	7	20	31	25	14	2		
MIDDLE TENNESSEE STATE UNIVERSITY	Tennessee	11,080	3,794	7,896	3	16	33	29	14	5	0		
UNIVERSITY OF TENNESSEE-CHATTANOOGA	Tennessee	7,708	1,972	5,736	1	9	26	34	21	8	1		
TENNESSEE TECHNOLOGICAL UNIVERSITY	Tennessee	6,691	2,237	4,454	2	13	29	29	17	9	1		
UNIVERSITY OF MEMPHIS	Tennessee	6,357	2,209	4,148	4	21	31	25	13	6	0		
STATE-COLLEGE/NO REPORT'S NOW	Iowa	6,184	6,183	1	12	32	30	16	6	2	1		
EAST TENNESSEE STATE UNIVERSITY	Tennessee	5,024	1,749	3,275	2	12	28	32	18	7	0		
AUSTIN PEAY STATE UNIVERSITY	Tennessee	4,091	1,535	2,556	2	16	35	29	14	4	0		
UNIVERSITY OF TENNESSEE-MARTIN	Tennessee	3,859	1,228	2,731	2	15	31	31	16	6	0		
VANDERBILT UNIVERSITY	Tennessee	3,843	888	2,957	2	11	20	22	20	20	5		
TENNESSEE STATE UNIVERSITY	Tennessee	3,507	841	2,666	8	34	39	15	4	1	0		
BELMONT UNIVERSITY	Tennessee	2,493	653	1,840	1	8	22	28	25	15	1		
CARSON-NEWMAN COLLEGE	Tennessee	2,246	489	1,757	2	11	31	31	18	7	0		
STATE-NO COLLEGE PLANS	Iowa	1,655	1,655	0	22	44	25	6	2	1	0		
LIPSCOMB UNIVERSITY	Tennessee	1,651	441	1,210	2	10	23	28	22	14	1		
CHATTANOOGA ST COMM COLL	Tennessee	1,599	654	945	6	27	39	22	6	1	0		
PELLUSSIPPI STATE TECHNICAL COMM COLL	Tennessee	1,598	675	923	4	18	34	29	11	3	0		
WALTERS STATE COMMUNITY COLLEGE	Tennessee	1,516	644	872	4	22	38	28	9	2	0		
SOUTHWEST TENNESSEE COMMUNITY COLLEGE	Tennessee	1,483	513	950	13	38	32	13	4	1	0		
WESTERN KENTUCKY UNIVERSITY	Kentucky	1,462	378	1,086	1	14	32	31	16	6	0		
UNIVERSITY OF ALABAMA	Alabama	1,434	469	965	1	6	14	23	26	25	6		
ROANE STATE COMMUNITY COLLEGE	Tennessee	1,391	580	811	4	21	39	27	7	1	0		
UNIVERSITY OF MISSISSIPPI	Mississippi	1,370	380	980	2	9	18	29	25	17	1		
ITT TECHNICAL INSTITUTE-KNOXVILLE	Tennessee	1,363	385	978	9	36	33	18	4	1	0		
VOLUNTEER STATE COMMUNITY COLLEGE	Tennessee	1,359	556	803	3	21	40	26	8	2	0		
NCAA ELIGIBILITY CENTER	Indiana	1,349	662	687	4	18	28	26	16	8	1		
MISSISSIPPI STATE UNIVERSITY	Mississippi	1,275	368	907	2	9	20	26	25	17	1		
MOTLOW STATE COMMUNITY COLLEGE	Tennessee	1,226	401	825	4	24	38	24	8	1	0		
LEE UNIVERSITY	Tennessee	1,169	419	750	2	9	24	31	24	10	1		
JACKSON STATE COMM COLLEGE	Tennessee	1,150	439	711	7	27	39	20	6	1	0		
All Other Institutions		64,574	17,144	47,430	4	18	27	22	15	11	2		
Total		165,590	55,460	110,130	4	17	28	25	16	9	1		

- ACT Profile Report, State Graduating Class 2014, Tennessee.

Discussion Group 3:

The table (table 4.3) on the previous page lists the colleges students sent their score reports to at the time of testing, as well as the breakdown of students in the CRS ranges. (Students can send reports up to 4 institutions for free.) As you review the table, discuss with your table your observations about student score reporting. Review the score ranges as if they represented a single school.

- The average ACT score for entering freshmen at the University of Tennessee Knoxville (UTK) is a 27. Using the data above, what percentage of student sending their scores to UTK were below the average? What percentage were above the average? How do we communicate (and who communicates) to students postsecondary ACT admission expectations?
- How do the students' CRS ranges match where they are sending their reports?
- What do students need to know by the time they take the ACT about postsecondary options and requirements? How would you incorporate this information into your interaction with students?

Gallery Walk

To prepare for the gallery walk, please capture the following on chart paper:

- 1) What data is included in this section of the report?
- 2) Why is this data important?
- 3) What can an educator do to assist with using this data at the school level?

Case Study 3: Ann and her ACT Scores

You are meeting with each student during advisory to review his or her ACT score results report from the school's state ACT test day. The school counseling department has every provided student's ACT score report, as well as a copy of the ACT College Readiness benchmarks and an explanation of what it means to meet the benchmarks. Students will take home their ACT score report and the expectation is they will review it with their parents. Parents have been informed of this with a phone call home, a message on the school's website, and a letter mailed home.

Ann has been in your advisory class since her freshman year. She is a junior and is the oldest of three children. She has taken honors classes and college preparatory (CP) courses, earning A's and B's. Her mother graduated from a four-year college 25 years ago and is an operating room nurse. Her father went to community college for one year before dropping out; he worked as a restaurant manager, but he died when she was in the 7th grade. At the beginning of the semester you asked your advisory students to complete a college career survey; Ann indicated her first choice is to attend a four-year college in state. She will need help paying for college.

Additional information about Ann's high school career to date:

- Ann was recommended for AP English Language and AP US History for her 11th grade English class, but she took Honors English 3 and CP US History instead. Her mother told her they could not afford the \$90 per test AP fee.
- Because Ann is one of three children and her mother is a widow, her mother is not able to attend many of the school's workshops. She missed the fall 11th grade night during which counselors provided detailed information about what to expect during the 11th and 12th grades. She does try to keep up through phone calls and checking the school's website on her cell phone.
- All of the school's presentations are posted on the school's website, but the school has not consistently publicized this information, and due to their family finances, Ann's mother recently made the decision to drop their home internet service provider.
- During the week of registration for Ann's senior year, the school counselor invited the local community college's dual enrollment coordinator to talk with rising juniors and seniors about dual enrollment requirements and course offerings. The presentation is posted on the school counseling web page for students, families as well as educators to review.

You pull out Ann's ACT report and begin a conversation with her. This is what you see:

[illegible]

Use the space below to make notes about what you will discuss with Ann:

Scores and predictive data:	Benchmarks met? How will the scores affect her college courses?
Educational plans? How do they relate to her scores?	College Educational needs and Interests: What does Ann need help with? What resources are available to meet those needs?
Does Ann see the value of taking the ACT report beyond the scores reported in each category?	Does the plan to take the ACT again?

When you ask Ann where she wants to go to college, her first choice is at the state's flagship institution, which has a nationally recognized college of business. You know from weekly email communications from the school counseling office that the university's average freshman composite ACT score is a 27, and that the school super scores the ACT, meaning they accept the highest sub score from each test to create the highest score available to students. During the meeting, Ann tells you she is open to looking at other colleges but the state university is her top choice as she plans to room with her best friend.

Since Ann attended the school's meeting on dual enrollment, she plans to take dual enrollment courses in math and English her senior year, as these two courses will be covered by the state's dual enrollment grant and will be free, except for the cost of books. She is eligible to take English 1010 as well as Math 1530, Statistics (which requires a 19 or higher on the Math section of the ACT for dual enrollment eligibility).

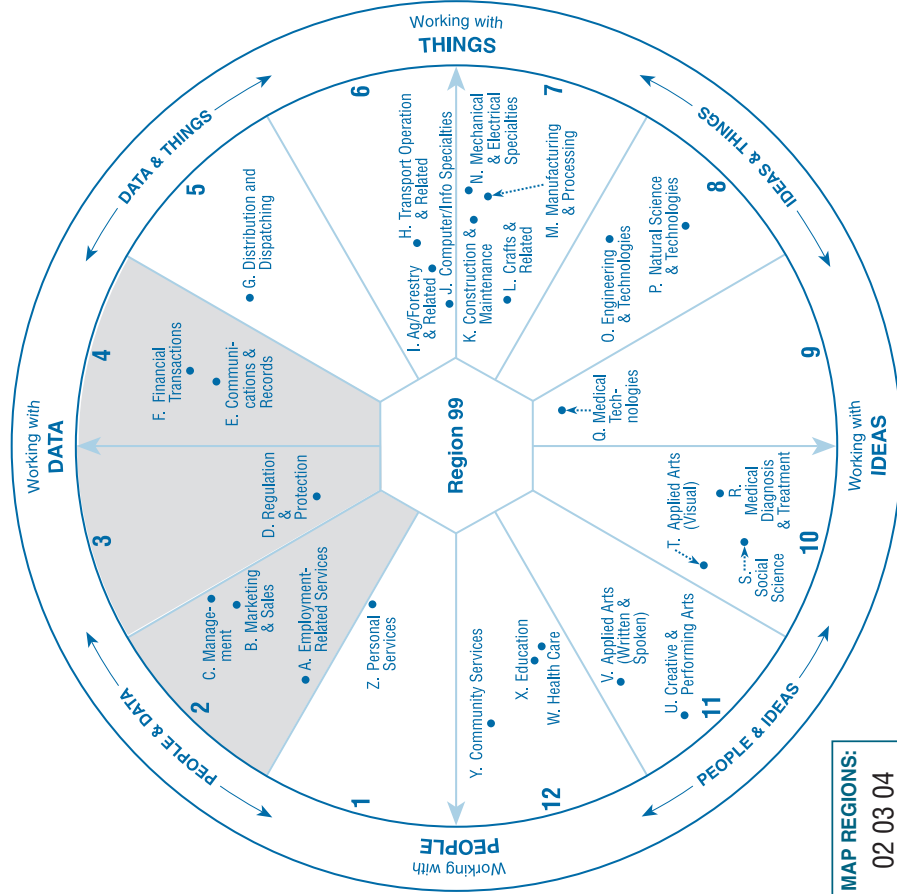
Discussion: Framing the conversation with Ann

- How does the flagship university's average freshman ACT score compare with hers?
- What are some strategies you could discuss with Ann to improve her ACT score?
- Ann didn't meet all the benchmarks. What will the conversation look like when you share this information with Ann?
- What questions can you ask Ann to encourage her to research and expand her college options?

CAREER OPTIONS (For Student Use)

The World-of-Work Map arranges Career Areas (groups of similar occupations) into 12 regions. The location of a Career Area shows how much it involves working with people, things, data, and ideas. Although the locations of occupations in an area differ, most are near the point shown. Your location on the World-of-Work Map is based on the 72 activity preferences you reported on the ACT Interest Inventory. To identify related college majors, see the steps below the map.

WORLD-OF-WORK MAP



HOW TO USE THE MAP:

1. The Career Areas in the shaded regions contain occupations that involve the kinds of activities you told us you prefer. Information on hundreds of occupations and college majors is available at www.actstudent.org. Find out about occupations in Career Areas that look good to you.
 2. If "Region 99" is reported, your responses to the inventory did not suggest a clear direction to explore. If your map is blank, you did not answer enough items for scoring. Go to www.actstudent.org and begin exploring.
 3. Starting to think about college majors? The list to the right shows a few examples of college majors related to each Career Area.
- Keep in mind that map regions (like other test scores) are estimates. They provide suggestions, not decisions. Also, your **interests** and **abilities** may differ. Both need to be considered in career planning.

EXAMPLES OF COLLEGE MAJORS AND PROGRAMS

Examples of college majors and programs of study related to each **Career Area** are listed below. (Your counselor or advisor may have additional examples.) Programs are designated (2) if they are usually offered by 2-year colleges and (4) if they are usually offered by 4-year colleges. Programs usually offered by both are designated (2, 4).

A. Employment-Related Services: Human Resources Dev/Train (4), Human Resources Mgmt (2, 4), Labor/Industrial Relations (2, 4)	N. Mechanical & Electrical Specialties: Aircraft/Avionics Technology (2), Automotive Mechanics/Technology (2), Mechanics & Repair Technology (2)
B. Marketing & Sales: Fashion Merchandising (2, 4), Marketing Mgmt/Research (2, 4), Real Estate (2, 4), Sales (2, 4)	O. Engineering & Technologies: Architecture (2, 4), Drafting (2), Engineering (2, 4), Engineering Technology (2, 4), Radio/TV Broadcasting Technology (2, 4)
C. Management: Business Admin/Mgmt (2, 4), Hotel/Motel/Restaurant Mgmt (2, 4), International Business Mgmt (4), Office Mgmt (2, 4), Sports/Recreation Mgmt (2, 4), Travel/Tourism Mgmt (2, 4)	P. Natural Science & Technologies: Biology (2, 4), Chemistry (4), Mathematics (4), Physical Sciences (2, 4), Physics (4)
D. Regulation & Protection: Corrections (2, 4), Criminal Justice (2, 4), Law Enforcement (2, 4), J. Computer/Info Specialties (2), Protective Services (2, 4)	Q. Medical Technologies: Food & Nutrition (2, 4), Medical Lab Technology (2, 4), Radiologic Technology (2, 4), Respiratory Therapy Technology (2, 4), Veterinarian Technology (2, 4)
E. Communications & Records: Court Reporting (2), Legal Admin Assist (2), Medical Office (2), Medical Records (2, 4), Secretarial Studies (2)	R. Medical Diagnosis & Treatment: Communication Disorder Services (4), Emergency Medical Technology (2), Medicine (4), Occupational Therapy (2, 4), Physical Therapy (2, 4)
F. Financial Transactions: Accounting (2, 4), Banking & Financial Support Services (2, 4), Finance (4), Investments & Securities (4)	S. Social Science: Economics (4), History (4), Political Sci/Government (4), Psychology (2, 4), Social Sciences (2, 4), Sociology (4)
G. Distribution & Dispatching: Aviation & Airway Science (2, 4), Aviation Mgmt & Operations (2, 4)	T. Applied Arts (Visual): Cinema/Film/Video (2, 4), Design & Visual Communications (2, 4), Fine/Studio Arts (2, 4), Graphic Design (2, 4), Interior Design (2, 4)
H. Transport Operation & Related: Aircraft Piloting & Navigation (2, 4), Transportation & Materials Moving (2, 4)	U. Creative & Performing Arts: Creative Writing (4), Dance (4), Music (2, 4), Public Speaking (2, 4), Theatre Arts (2, 4)
I. Agriculture, Forestry & Related: Agribusiness (2, 4), Agriculture (2, 4), Forestry (2, 4), Horticulture (2, 4), Natural Resources Conservation/Mgmt (2, 4)	V. Applied Arts (Written & Spoken): Advertising (2, 4), Communications (2, 4), English Lang/Lit (2, 4), Foreign Lang/Lit (2, 4), Library Science (2, 4)
J. Computer & Information Specialties: Computer/Information Sciences/Programming (2, 4), Mgmt Information Systems (2, 4), Networking/Systems Admin (2, 4), Web Design (2, 4)	W. Health Care: Dental Hygiene (2, 4), Exercise Science (4), Medical/Dental/Surgical Assisting (2), Nursing (2, 4), Public Health (4)
K. Construction & Maintenance: Construction Trades (2), Construction/Building Technology (2, 4), Fire Protection & Safety Technology (2, 4)	X. Education: Early Childhood Teaching (2, 4), Elementary Teaching (4), Health/Physical Education (4), Special Education (4), Subject-Specific Teaching (4)
L. Crafts & Related: Culinary Arts/Chef Training (2, 4), Textile & Apparel (2, 4)	Y. Community Services: Child Development (2, 4), Family & Consumer Sciences (2, 4), Paralegal/Legal Assistant (2, 4), Religion (2, 4), Social Work (2, 4)
M. Manufacturing & Processing: Graphic & Printing Equipment Operation (2, 4), Machine Tool Technology (2), Precision Production Trades (2), Welding Technology (2)	Z. Personal Services: Cosmetology/Hair-styling (2), Health-Related Services (2)

The back of the ACT student report shows a World-Of-Work map that shows the results of Ann's career interest inventory. The World-Of-Work map help students see the connections between potential careers and their interests.

<https://act.org/www/index.html>

All occupations can be organized according to their involvement with four types of basic work tasks, working with: data (facts, records, number, business procedures); ideas (abstractions, theories, insights, new ways of doing things); people (care, services, leadership, sales); and things (machines, materials, crops/animals).

Ann's results on the World-Of-Work map (found in segments 2, 3, and 4: working with people and data) align with her educational goals. The majors found on the map align with her career goals found on the front page of the ACT report. She tells you that when she was in 9th grade, her mother wanted her to be a doctor, "because as a nurse in a hospital, she sees how much money they make," but Ann really wants to be working in a business setting.

Discussion/Goal Setting with Ann

One of the outcomes of your meeting with Ann is to help her set goals in preparation for senior year as well as prepare for applying for college. You are discussing these results with Ann after the state ACT, so it's late spring of her junior year. What do you think three of Ann's goals should be? What should the timeline be for these goals?

Goal	Timeline for Completion
1.	
2.	
3.	

Group Reflection:

What information do you need to assist Ann with increasing her knowledge of researching and applying to college?

How would you use sample score report data in your classroom?

What should students know about the ACT report before they take the test?



Key Idea #10



All educators should understand their students' progress and assist in goal setting during regular **instruction**. Goals for students should be communicated regularly by all educators.

Individual Student Planning: Focused Four-Year Plan of Study

Read the following paragraphs from Conley as well as the Tennessee State Board of Education policy. Then read the case study. Ann, the student in the case study, is the same student from the first case study but this case study focuses on her transition from middle school to high school. Break into a new group of 2-3 people and answer the discussion questions.

“Counselors, advisors, or other trained educators members can use the results of career assessments, career exploration activities, and knowledge of students’ goals to help them plan beyond high school and select courses that will prepare them to achieve their goals. The most successful schools help students review and modify their plans multiple times a year as students aspirations change. It is often helpful to involve parents and teachers in long-term planning meetings as this helps them to understand and support their students.

Student advisory periods can be used to improve academic behaviors and convey information about college. The most effective advisory systems are those that reinforce a personal relationship between each student and an adult. Advisories are especially important in schools where counselors do not have the opportunity to meet regularly with each student. Ideally, teachers and administrators who serve as advisors should be trained by and work in collaboration with school counselors. With appropriate training, advisors can help students develop and monitor long term plans, select appropriate courses and activities to achieve those goals, and overcome obstacles to success.”

- Conley, *College and Career Ready*, 2010

Prior to 9th grade, all students will develop an initial four-year plan of focused and purposeful high school study. The plan will be reviewed annually and will connect the student’s academic and career goals to school.

Policy implications:

- A. When the student is in the eighth grade, the student, parent/guardian(s), and faculty advisor or guidance counselor will jointly prepare an initial four-year plan of focused, purposeful high school study.
- B. By the end of tenth grade, the student, parent/guardian(s) and school will focus the plan to ensure the completion of the program of study and a smooth transition to postsecondary study and work. An integral aspect of the planning process is the assumption that the student will be involved in some form of postsecondary education/training. The plan should contain information about career options and long-term goals supported by the plan through the courses to be taken in the eleventh and twelfth grades as well as courses to be taken at the postsecondary level.

- C. The plan of study will be reviewed annually by the student and faculty advisor or guidance counselor, and revised based on changes in the student's interests and career goals. Results of various types of assessments will also be used in adjusting the plan of study.
- D. High school and middle grades faculty will collaborate in planning curriculum and the transition between middle grades and high school.

- *Tennessee State Board of Education High School Policy 2.103.*

Reflection:

- If Conley's writings and the State Board of Education policy represented points on a spectrum, where would your school be located on the spectrum? What role do you play in helping students see connections between their academic and career goals?

Discussion:

- How could this information impact student planning at your school?

Case Study 4—Ann in Middle School, Transition to High School:

It is February of Ann's eighth grade year. She receives a letter from her zoned high school inviting her and her mother to rising ninth grade night, where they will learn more about the high school courses and activities. Her mother receives a notice from her middle school, as well as a phone call and email reminder. Outside the auditorium there are many tables displaying information about clubs, groups, and academic departments, showcasing their offerings. Ann notices there is a space in the atrium that looks like a bank; she learns the school has a banking class where students learn about banking and finance and run the school's branch of the local credit union. Her mother, who wants her to pursue a career in medicine, notices the health science tables, where high school students are taking eighth graders' blood pressure. Her mom encourages Ann to talk to the Health Sciences teacher. Ann reluctantly agrees.

Ann and her mom pick up her ninth grade course registration sheet, which she and her mom will complete at her eighth grade focused plan of study small group meeting. She also picks up a copy of ninth grade course offerings, and is directed to look at the complete course catalog on the high school's counseling web page.

Based on her state test scores, teacher recommendations, and eighth grade class work, Ann was recommended for the following: Honors English 1, Algebra 1, Physical World Concepts, and Honors World History/Geography, and these are pre-printed on her registration form. She is a little discouraged she was recommended for Algebra 1, as she is enrolled in it as an eighth grader, but she has struggled in the course and her teacher and parents agree she should retake the course for a solid foundation in math.

The following day, Ann's mom signs up online for a meeting time at the middle school eighth grade planning meetings (these meetings are offered during the school day as well as in the evenings to accommodate parent schedules). The high school counselors hold these meetings alongside the middle school counselors for students and their parents to complete their registration and a focused plan of study. Through professional development, middle school counselors have trained the eighth grade homeroom teachers about the high school graduation requirements, elective focus requirements, career technical education strands and paths of study offered by the high school, and how to review the sample plan of study during class, so the students and parents will know what to expect at the meeting. Teachers then explain to students that the plan of study is a guide in developing an understanding of what the sequence of high school courses will look like so that over the next four years, students have an opportunity to complete their graduation requirements, take electives that will help them explore careers, as well as prepare them for postsecondary success. They spend most of the

time focused on the back of the sheet, explaining the multiple options for postsecondary education and training.

Ann has reviewed the course registration sheet and has tentatively decided on the following classes as electives: Lifetime Wellness (a graduation requirement); Aerobics (another graduation requirement), Health Science, and Introduction to Business and Marketing.

Ann chose Health Science because her mother asked her to. She chose Introduction to Business and Marketing because she is interested in going into a career in business. She took a career interest inventory in seventh grade, and her responses indicated her strengths are in the business field. The Banking and Finance teacher at the high school told her at rising ninth grade night that the Introduction to Business and Marketing class was a prerequisite to taking the class, so she signed up for it.

At the meetings, the counselors, students and parents meet in small groups, reviewing the required courses that students take each year. The eighth graders write down under the ninth grade column the courses they have signed up for on their registration sheet. The counselors explain that, in the 11th and 12th grade, based on their grade point average and ACT test scores, they may be able to take advantage of dual enrollment courses at the community college, or industry certifications while in high school, so it is important to work hard from the very beginning of their high school career. Ann and her mother are interested in dual enrollment, so she writes in dual enrollment for English and Math her senior year.

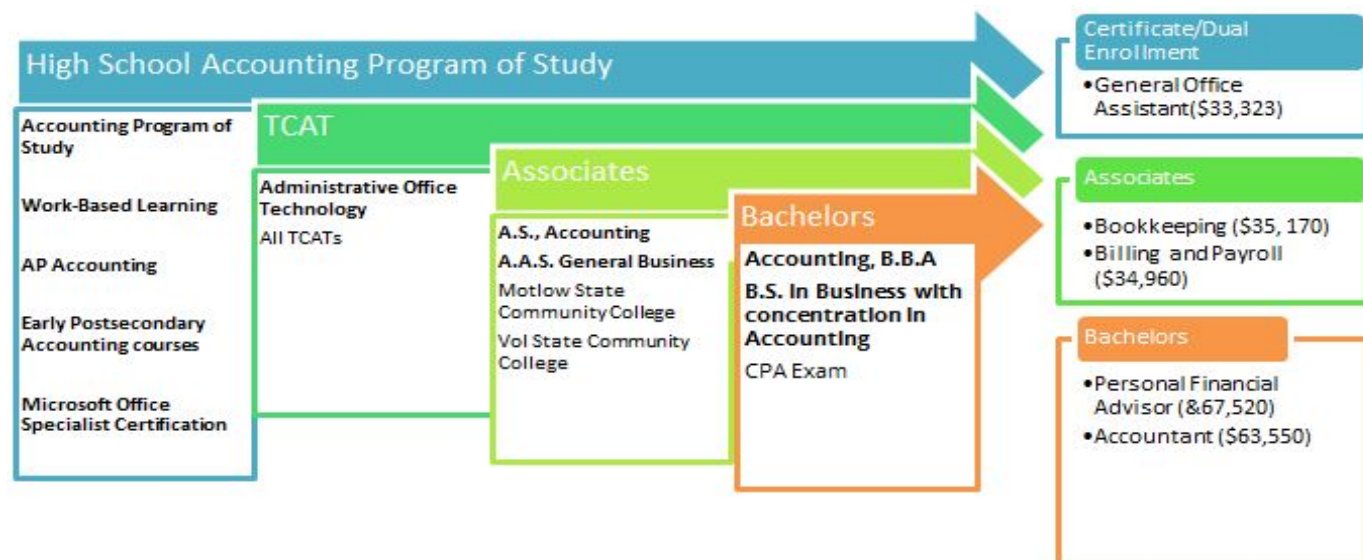
Then the meeting turns to electives and selecting potential electives to take each year in high school. When the students entered the meeting, they were given a copy of their career interest inventory report to review. The counselors ask the students to turn the report over to look at the results from the world-of-work map, as they will begin describing the electives offered at the school using the world-of-work map as a guide. Ann's interests are A, B, C, D, E, and F:

A. Employment-Related Services: Human Resources Dev/Train (4), Human Resources Mgmt (2, 4), Labor/Industrial Relations (2, 4)
B. Marketing & Sales: Fashion Merchandising (2, 4), Marketing Mgmt/Research (2, 4), Real Estate (2, 4), Sales (2, 4)
C. Management: Business Admin/Mgmt (2, 4), Hotel/Motel/Restaurant Mgmt (2, 4), International Business Mgmt (4), Office Mgmt (2, 4), Sports/Recreation Mgmt (2, 4), Travel/Tourism Mgmt (2, 4)
D. Regulation & Protection: Corrections (2, 4), Criminal Justice (2, 4), Law Enforcement (2, 4), Military Technologies (2), Protective Services (2, 4)
E. Communications & Records: Court Reporting (2), Legal Admin Assist (2), Medical Office (2), Medical Records (2, 4), Secretarial Studies (2)
F. Financial Transactions: Accounting (2, 4), Banking & Financial Support Services (2, 4), Finance (4), Investments & Securities (4)

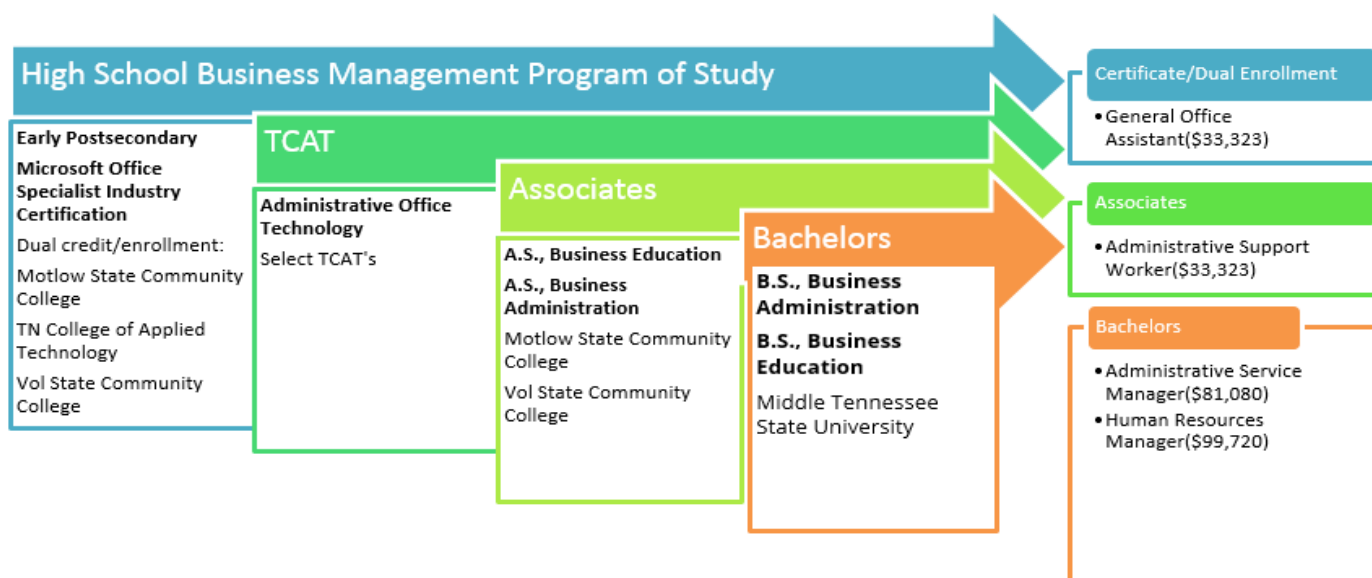
This is the first time Ann's mother has seen these score reports (the school offered a report meeting at night but it conflicted with her other children's schedules). She is surprised at Ann's reported interests, saying to Ann, "but I thought you wanted to be a doctor! Haven't I told you how much money the doctors at the hospital make?" The high school counselor working with their small group suggests that Ann consider taking a Health Science elective as a ninth grader as an introduction to health science careers, and also adds that if she likes the health science class, she could include AP Biology and Honors Anatomy & Physiology into her science electives as an 11th and 12th grader, as students who have strong backgrounds in the sciences are better prepared for the rigor of college and medical school.

The high school counselor has copies of the Career and Technical Education program of study for each career cluster offered at the high school and she shares the ones for Finance, Business, and Health Science with Ann and her mother:

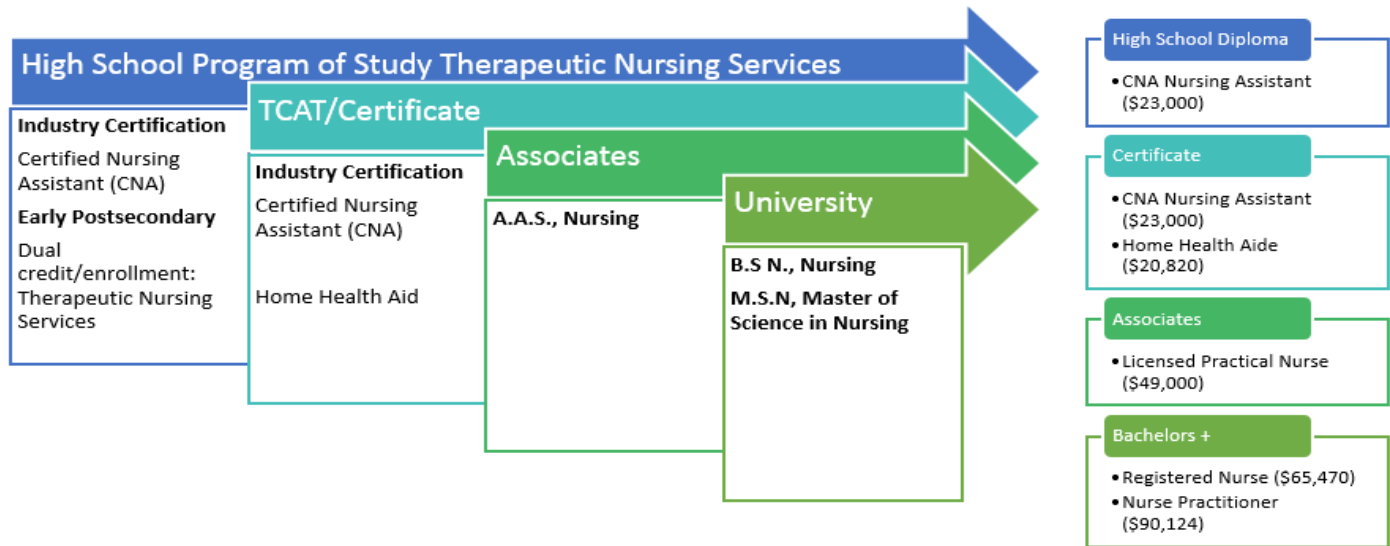
2016-17 Open Enrollment Guide



2016-17 Open Enrollment Guide



2016-17 Open Enrollment Guide



While the counselor is helping other students, Ann and her mother look at a copy of the course catalog and find the courses under the finance program of study; she sees that in addition to the Introduction to Business and Management class for ninth graders, in the 10th grade she would take Accounting I, and in the 11th grade Banking and Finance. She fills these in the elective spots for each year. Still having room in her four-year plan, she writes in Spanish 1, Spanish 2, and Theater 1 for her 10th grade year, to complete her foreign language and fine arts graduation requirements.

Discussion

- What direction would you lead Ann as she and her mother make decisions about her high school plan of study?
- What academic support will Ann need?
- How does the transition from middle school to high school work at your school or in your district?

Discussion:

- Any new information in this case study that you didn't know about the transition from middle school to high school?
- Depending on your role (grade level, subject area), how might you discuss the creation or revision of a student's 4-year plan?

Activity

Work in pairs. One of you is a teacher (play yourself!); the other is a student in your class. Spend one minute filling in information (grade level, subject area, student name), then, spend 5 minutes discussing creating or updating the student's plan, given the concern shared below.

- 1 minute: Share teacher grade level/subject area and student name for each pair.
- 5 minutes: Teacher A and Student B have a conference to create/update Student B's plan, given the information about Student B below.
- 5 minutes: Teacher B and Student A have a conference to create/update Student A's plan, given the information about Student A below.

Teacher A Grade Level: Subject Area:	Teacher B Grade Level: Subject Area:
Student A <ul style="list-style-type: none"> • Typically holds grades in low C range, has been served in Tier II RTI² • Expressed interested in manufacturing or machining career • One parent earned two-year degree; other parent earned their GED. Lives with both parents and five siblings. Has been on reduced lunch program for several years. • Missed all 4 benchmarks on an ACT predictive test by 3 points each. • Said "College isn't for me – why should I even take the ACT?" 	Student B <ul style="list-style-type: none"> • Typically earns A's and B's without studying or much extra effort, recommended for honors courses • Interested in STEM/Engineering career. • One parent graduated from four-year university, one parent graduated from two-year college. • Exceeded math and science ACT predictive test benchmarks by 3 points each; missed English benchmark by 1 point, met social studies benchmark.
Notes:	Notes:



Key Idea #11



In order to ensure **readiness** for all students, all students should receive individualized support toward their chosen pathway, regardless of their background or current academic performance.

Case Study 5 - Resources to Share with Students and Reviewing the Focused Plan of Study in High School:

Ann has a strong 9th grade year; she makes A's and B's and joins several clubs. She meets once with the counselor about an academic issue (Physical World Concepts), and a social issue (friend trouble), but most of her interactions about college and career planning are with her teachers and especially her advisory teacher. During the spring of her 9th grade year, she and the advisory teacher review her 4 year plan during course registration for 10th grade classes.

In the fall of the 10th grade year the school counselor meets individually with each 10th grader and his/her parents. The purpose of the meeting is to review her official transcript, update the four year plan and to reemphasize the importance of postsecondary planning. The school counseling office sends home a letter to the parents, includes notice in the morning announcements, posts a notice on the school's website, and places a link on the website for an online scheduler. Because there are 125 10th graders on each counselor's caseload, the individual meetings will be limited to 20 minutes. Each school counselor encourages parents to follow up with any questions or concerns by email as there will probably not be enough time to thoroughly answer all their questions.

Ann and her mother meet with the counselor. Ann has a 3.5 GPA and has taken a combination of college preparatory and honors courses. The counselor begins by asking Ann about her postsecondary plans. Ann says she wants to go to a four-year college; Ann's mother looks uncomfortable and asks if they can get information about the "program that pays for 2 years of community college." The counselor introduces the topic of how to pay for college by talking with them about TN Promise, TN Transfer Pathway agreement, and Hope Lottery Scholarship program and directs them to websites for further information.

The school counselor also tells them about the various workshops offered to families in the 11th and 12th grade that focus on college and career planning as well as scholarships and financial aid. Together the three of them review her transcript; Ann enjoyed Accounting I this year, and still looks forward to the Banking and Finance class to take her 11th grade year. She decides to take Accounting II her senior year and complete the career technical education plan of study and elective focus in Finance. After taking the Health Science class her 9th grade year, she decided not to continue taking classes in that field.

The school counselor shares that, during the 11th grade, the school offers assemblies for students to learn about dual enrollment, the state ACT, and the PSAT. The Counseling department presents an evening college workshop series for students and parents. Workshops include presenters from the Tennessee Student Assistance Corporation (TSAC) and the Director

of Financial Aid at the local community college to talk about financial aid, the HOPE and other scholarships, and “College Admissions 101” night, including presentations from the community college, the Tennessee College of Applied Technology, a private college as well as one of the state’s universities. There are daytime mini college fairs in the fall and spring, so students have an opportunity to speak with admissions representatives.

In the spring of 11th grade, Ann meets individually with her school counselor to review the courses she plans to take senior year, and review postsecondary plans she will complete during her senior year. The counselor gives her with an agenda they will follow for the meeting:

In the summer before her senior year, Ann took the ACT for a second time. The results are:

- English raised 1 point to 25
- Math raised 3 points to 21
- Science raised 2 points to 20
- Reading raised to 24

As Ann begins her 12th grade year, she has a 3.6 grade point average, and plans to apply to three colleges: the local community college, the state’s flagship university, and another university that has a respected accounting program. Her school is participating in Tennessee’s College App week, during which she completes her TN Promise application as well her applications to all three colleges. She attends her required meetings for TN Promise, and files her Free Application for Federal Student Aid on time. On College Signing Day (May 1), she decides to attend the university with the respected accounting program.

Jigsaw Activity: Additional Resources for Educators to Share with Students

In groups of four, participants will review one of four resources: Tennessee HOPE Scholarship; FAFSA; Dual Enrollment; and Early Postsecondary Opportunities (EPSO), and then report information about the programs to the four participants:

Tennessee HOPE Scholarship

Note: The HOPE Scholarship is part of the Tennessee Educational Lottery Programs. For information on the range of scholarships available to students seeking postsecondary education and training, go to <https://www.tn.gov/collegepays/topic/tennessee-education-lottery-programs>.

Entering freshmen must meet the following requirements:

- Apply by completing the Free Application for Federal Student Aid (FAFSA), available at www.fafsa.gov.
- Applications must be received by September 1st for fall semester, February 1st for spring and summer semesters. Early application is recommended.
- Have been a Tennessee resident for one year by September 1 of the application date. For students beginning spring and summer terms, residency determined by February 1 as of application date, - See more at: <http://www.tn.gov/collegepays/article/tennessee-hope-scholarship#sthash.aRXqDD2v.dpufh>
- Enroll in one of the Tennessee public colleges, universities, or private colleges.
- Entering freshmen must achieve a minimum of a 21 ACT (980 SAT), exclusive of the essay and optional subject area battery tests OR
- Overall weighted* minimum 3.0 grade point average (GPA)
- ACT/SAT exams must be taken on a national test date or state test date and prior to the first day of college enrollment after high school graduation. The ACT Residual test is not accepted.
- Must enroll within 16 months following high school graduation at any postsecondary institution. However, enrollment at an ineligible postsecondary institution during the 16 months will make the student permanently ineligible. - See more at: <http://www.tn.gov/collegepays/article/tennessee-hope-scholarship#sthash.aRXqDD2v.dpuf>
- Four-Year Institutions and two-year institutions with on-campus housing: Up to \$1,750 per full-time enrollment semester as a freshmen and sophomore; then up to \$2,250 per full-time enrollment semester as a junior and senior
- Two-Year Institutions: Up to \$1,500 per full-time enrollment semester as a freshman and sophomore Award amounts are available for summer enrollment Class status is

determined by the postsecondary institution - See more at:

<http://www.tn.gov/collegepays/article/tennessee-hope-scholarship#sthash.aRXqDD2v.dpuf>

Renewal Criteria

- The student must have a minimum 2.75 cumulative GPA at the end of the semester in which the student attempted 24 and 48 semester hours.
- The student must have a minimum 3.0 cumulative GPA at the end of the semester in which the student attempted 72 and 96 semester hours.
- If the student's program of study is greater than 120 semester hours in length (not to exceed 136 semester hours or the number of semester hours required to earn the degree), the student must have a minimum 3.0 at the end of the semester in which the student attempted 120 semester hours.
- If the student does not have a minimum 3.0 cumulative GPA at the end of the semester in which the student attempted 72 and 96 semester hours, then the student must: Have a minimum 2.75 – 2.99 cumulative GPA and have a semester GPA of at least 3.0 at the end of the semester in which the student attempted 72 and 96 semester hours.
- The student's continued eligibility will be determined on a semester-by-semester basis and must maintain full-time enrollment.
- If a student ceases to be academically eligible for the HOPE Scholarship, the student may regain the award one-time only. The award may be re-established once the student meets any of the above criteria and maintains continuous enrollment and satisfactory academic progress at an eligible postsecondary institution without the HOPE Scholarship.
- Must be continuously enrolled at an eligible postsecondary institution in the fall and spring semesters and maintain satisfactory academic progress - See more at: <http://www.tn.gov/collegepays/article/tennessee-hope-scholarship#sthash.aRXqDD2v.dpuf>

FAFSA—Free Application for Federal Student Aid (from *fafsa.gov*)

One thing you don't need for the FAFSA is money! The FAFSA is FREE, so if a website asks you to pay to fill it out, you're not dealing with the official FAFSA site. Remember, the FAFSA comes from the government, so it's on a .gov site: fafsa.gov.

While completing the FAFSA, you must list at least one college to receive your information. The schools you list will use your FAFSA information to determine the types and amounts of aid you may receive.

For purposes of federal student aid, it does not matter in what order you list the schools. However, to be considered for *state aid*, some states require you to list schools in a particular order (for instance, you might need to list a state school first). [Find out whether your state has a requirement for the order in which you list schools on your FAFSA.](#)

You can list up to 10 schools on the online FAFSA or up to four schools on a paper FAFSA. (You can [add more schools to your FAFSA](#) later.) Schools you list on your FAFSA will automatically receive your FAFSA results electronically.

Providing Financial Information (Before or After Filing Taxes)

The FAFSA asks for financial information, including balances of savings and checking accounts and information from tax forms.

- Use income records for the tax year prior to the *academic year* for which you are applying: for instance, if you are filling out the 2016–17 FAFSA, you will need 2015 tax information. (Starting with the 2017–18 FAFSA, you'll need to report income information from the tax year two years prior to the academic year. [Learn more about the 2017–18 FAFSA.](#))
- If you haven't done your taxes by the time you fill out your FAFSA, it's okay to estimate the amounts. You might want to base your estimates on last year's tax return. If your income changed drastically since last year's tax return, you may click on "Income Estimator" on the FAFSA page that asks for income information. The Income Estimator will help you estimate *adjusted gross income (AGI)*. After you file your taxes, you'll need to log back in to the FAFSA and [correct any estimated information](#) that was wrong.
- If you have done your taxes before filling out your FAFSA, be sure to consider the option the FAFSA offers you to use the IRS Data Retrieval Tool (IRS DRT). You may be able to use the tool if you filed your taxes electronically at least three weeks ago or if you filed on paper at least 11 weeks ago. [Find out when your tax return information will likely be available using the IRS DRT.](#) Here's how the IRS DRT process works:

- o The IRS DRT takes you to the IRS website, where you'll need to log in by providing your name and other information exactly as you provided it on your tax return.
- o At the IRS site, you can preview your information before agreeing to have it transferred to your FAFSA.
- o When you return to the FAFSA, you'll see that questions that are populated with tax information will be marked with "Transferred from the IRS." Don't make any changes to those answers (except where Individual Retirement Account or pension rollovers are involved), or you'll invalidate the information you retrieved.
- o If you or your parents are married and you've used IRS DRT to transfer information into your FAFSA, you'll see that a value for Income Earned from Work is transferred. Refer to the [guidance about Income Earned from Work for student and spouse](#) and [guidance about Income Earned from Work for parents](#) in the help topics on the FAFSA site to correctly document this value.

Using the IRS DRT saves you time and effort:

- You don't have to find your tax records.
- You don't have to worry about making mistakes entering your tax information on your FAFSA.
- If you use the IRS DRT and don't change any of the retrieved information in your FAFSA (other than that listed in step 3 above), you won't need to provide tax transcripts if you're selected for *verification*.

Before your FAFSA can be processed, you'll need to sign and submit it. Here are some tips as you finish your FAFSA:

- Be sure to sign with your FSA ID (your username and password) so your FAFSA will be processed as quickly as possible.
- Once you see your confirmation page, you'll know you've successfully submitted your FAFSA. If you provided an e-mail address on your FAFSA, you'll automatically receive the confirmation page by e-mail. There are a few differences between the e-mailed confirmation and the one you'll see in the FAFSA before exiting the application, so consider printing or saving your confirmation page before you exit. For example, the e-mailed confirmation won't include the college graduation, retention, and transfer rates for schools you listed on your FAFSA.
- When you fill out the FAFSA, you're also automatically applying for certain state financial aid. In some cases, the state requires an additional application in order to determine your eligibility for state aid. There are some states that have a partnership with the FAFSA that allows you to transfer your information directly into your state aid application, so if you see a link on your FAFSA confirmation page to your state financial

aid application, you should click on it. (Please note that the link won't appear on the e-mailed confirmation page, so be sure to take advantage of it while you're still at the original confirmation page.)

- Your confirmation page offers the option for the parent information in your FAFSA to be transferred automatically into another student's FAFSA. So if you have a sibling who needs to fill out a FAFSA, be sure to use this option when you see your confirmation page. (Please note that the link won't appear on the e-mailed confirmation page, so be sure to take advantage of it while you're still at the original confirmation page.)

How can I check to see whether my FAFSA has been processed?

You can check the status of your FAFSA immediately after submitting it online. You can check the status of a paper FAFSA after it has been processed (roughly 7–10 days from the date mailed). Here's how:

- Option 1: Go to www.fafsa.gov and log in.
- Option 2: Contact the [Federal Student Aid Information Center](#).

If your FAFSA is still being processed, we recommend that you wait a few days before checking the status again.

Who will I hear from, and when?

First, we (the office of Federal Student Aid at the U.S. Department of Education) will send you a *Student Aid Report* (SAR), which is a summary of the FAFSA data you submitted. You'll get your SAR within three days to three weeks after you submit your FAFSA. Be sure to look over your SAR to make sure you didn't make a [mistake on your FAFSA](#). [Find out more about the Student Aid Report](#), its purpose, how the type of FAFSA you file determines when you'll get the SAR, and what you should do with it.

The SAR won't tell you how much financial aid you'll get. Instead, if you applied for admission to a college or career school and have been accepted, and you listed that school on your FAFSA, [the school will calculate your aid](#) and will send you an electronic or paper [aid offer](#), sometimes called an *award letter*, telling you how much aid you're eligible for at the school. The timing of the aid offer varies from school to school and could be as early as springtime (awarding for the fall) or as late as immediately before you start school. It depends on when you apply and how the school prefers to schedule awarding of aid.

What do I do if I'm told I've been selected for verification?

You might see a note on your *Student Aid Report* saying you've been selected for verification; or your school might contact you to inform you that you've been selected. Verification is the

process your school uses to confirm that the data reported on your FAFSA is accurate. Your school has the authority to contact you for documentation that supports the information you reported.

If you're selected for verification, don't assume you're being accused of doing anything wrong. Some people are selected at random; and some schools verify all students' FAFSAs. All you need to do is provide the documentation your school asks for—and be sure to do so by the school's deadline, or you won't be able to get financial aid.

If you used the Internal Revenue Service Data Retrieval Tool ([IRS DRT](#)) when filling out your FAFSA, and you have not changed any of the information retrieved, you will not have to verify that information. If you didn't use the IRS DRT and you're selected for verification, log back in at www.fafsa.gov to see whether you can use IRS DRT to fill in the relevant fields on your FAFSA. If not, your school may require you to submit a tax transcript as part of the verification process. You can find your tax transcript through the IRS's Get Transcript service at www.irs.gov/transcript.

How do I decide what aid to accept, and how do I accept it?

You'll need to understand the aid that's being offered (for instance, is it free money such as a *grant*, or is it a loan that you'll have to pay back?), decide what aid you really need, and then respond to the school's award letter within the deadline set by the school. [Get details about accepting aid.](#)

How do I get my money?

The financial aid staff at your college or career school will explain exactly [how and when your aid will be paid out](#). They also will tell you whether you need to fill out any more paperwork or meet other requirements. For instance, if you're receiving a *federal student loan* for the first time, you should expect to be required to sign a *promissory note* and go through [entrance counseling](#). Be sure to keep in touch with your school's financial aid office so that you understand the whole process of receiving your aid.

Early Postsecondary Opportunities in Tennessee

Tennessee students have an unprecedented opportunity for education and training beyond high school through the TN Promise. To ensure students are ready to take full advantage of the TN Promise and succeed in postsecondary, all students should have access to rigorous and relevant early postsecondary opportunities. Research has shown that students who participate in early postsecondary courses are more likely to enroll and persist in postsecondary.

Early postsecondary opportunities allow students to:

- Earn postsecondary credits while in high school
- Become familiar with postsecondary expectations.
- Develop confidence and skills for success in postsecondary.
- Make informed postsecondary and career decisions.
- Decrease the time and cost of completing a certificate or degree.

Early Postsecondary Opportunities Specific to Tennessee

- **Dual Enrollment** is a postsecondary course, taught either at the postsecondary institution or at the high school, by postsecondary faculty or credentialed adjunct faculty. Students are enrolled at the postsecondary institution and earn postsecondary credit upon completion of the course. High school credit is awarded based on local policy. With available lottery scholarship money, the state provides a dual enrollment grant to all eligible students. This grant allows students to take their first two dual enrollment courses in high school completely free of charge, with a discount on their third course.
- **Local Dual Credit** is a high school course which is aligned to a local postsecondary institution's course and taught at the high school by high school faculty for high school credit. Students are able to receive postsecondary credit by successfully completing the course and passing an assessment developed and/or recognized by the granting postsecondary institution.
- **Statewide Dual Credit** is a high school course which is aligned to statewide postsecondary standards and is taught at the high school by high school faculty for high school credit. Courses and their accompanying challenge exams are created by Tennessee secondary and postsecondary faculty. Students who meet or exceed the established cut score set for the exam earn credits which can be applied to any public postsecondary institution in Tennessee. Unlike local dual credit, statewide dual credit challenge exams are completely free of charge!

National and International Early Postsecondary Opportunities Available in Tennessee

- **Advanced Placement (AP):** The College Board's AP Program provides an opportunity for high school students to experience postsecondary-level coursework across multiple subjects. Each course is aligned to a subject-specific AP exam, which provides students the potential to earn credit for postsecondary coursework in that subject. There are currently state and federal grant programs that allow students who are economically disadvantaged to take the exams for little or no cost.
- **Cambridge International Examinations (CIE):** A division within the University of Cambridge, CIE provides internationally recognized academic programs for students age 5 to 19. The high school A and AS Level courses, available only through approved Cambridge International Schools, provide students the opportunity to earn postsecondary credit that is accepted by colleges in the U.S. and abroad. There are currently state and federal grant programs that allow students who are economically disadvantaged to take the exams for little or no cost.
- **International Baccalaureate (IB):** The IB Diploma Programme, available only through an approved IB World School, provides high school students the opportunity to take a rigorous, pre-university course of studies. IB courses are aligned to internationally-benchmarked exams which provide opportunities for students to earn postsecondary credit while still in high school. There are currently state and federal grant programs that allow students who are economically disadvantaged to take the exams for little or no cost.
- **College Level Examination Program (CLEP):** Developed by the College Board, CLEP exams are used to assess mastery of postsecondary-level material acquired in a variety of ways — through general academic instructions, significant independent study or extracurricular work. Students can earn credit for postsecondary coursework in a specific subject.
- **Capstone Industry Certifications:** State, national, and international assessments of technical skills, often available through national professional organizations (such as the American Welding Society) or state agencies (such as the Department of Health). These exams are not necessarily aligned to a specific course, but rather represent the culmination of an entire program of study in career and technical education. Recognized industry certifications are accepted by employers as a license or credential, proving technical skill, and also by postsecondary institutions, as prior learning assessments that can confer credits or hours toward a postsecondary degree. There are available Perkins Reserve grant opportunities to allow districts to cover the cost of industry certification exams for students who have completed applicable coursework.

<https://www.tn.gov/education/section/early-postsecondary>

ACT Preparation Resources

- **Fee Waivers:** The ACT offers fee waivers to all students who are currently enrolled in the 11th or 12th grade, either a U.S. citizen or testing in the U.S., U.S. territories, or Puerto Rico, and meet one or more indicators of economic need listed on the ACT waiver form. Forms can only be obtained through high school counselors. Learn more at <http://www.actstudent.org/faq/feewaiver.html>. Students registering for a national test day with a fee waiver are enrolled in online test-preparation support FREE of charge!
- **Standards Connections:** One of the best ways to help students prepare for the ACT is to provide rigorous instruction that promotes critical thinking, problem solving, and content knowledge, especially in math and English. To support teachers and students in understanding the connections between Tennessee academic standards (assessed through our state standardized tests) and the ACT subject test standards, we have created an ACT Connections document. Find it: https://gallery.mailchimp.com/b28b453ee164f9a2e2b5057e1/files/ACT_Connections_2_3_16.pdf.
- **Test Tips:** We've prepared general testing tips for both students and teachers. Find them online:
 - Students: http://tn.gov/assets/entities/education/attachments/act_general-testing-tips_student_2016.pdf
 - Teachers: http://tn.gov/assets/entities/education/attachments/act_teacher_test_tips.pdf
- **TDOE ACT Webinar:** Archived recording is available online at https://youtu.be/4_H7qxNbxN8.
- **Promising Practices:** TDOE has documented some of the great things Tennessee high schools are doing to improve ACT scores.
 - Classroom Chronicles: Marshal County High is #ACTReadyTN: <http://tnclassroomchronicles.org/marshall-county-high-actreadytn/>
 - ACT Promising Practices Documents: <http://tn.gov/education/topic/promising-practices-in-ccr>
- **Free ACT Preparation & Practice Tests:**
 - Each day, a different ACT test practice question is posted along with explanations for correct and incorrect answers at <http://www.act.org/qotd/>
 - Four retired ACT tests with answer keys can be found at: http://www.powerscore.com/sat/help/content_practice_tests.cfm.
 - Free test preparation resources are also available from Chegg (<https://www.chegg.com/test-prep/act/>) and Varsity Tutors (<http://www.varsitytutors.com/act-prep-book>), which features a free online test prep book.
 - The Tennessee Electronic Library (TEL) offers free tools for preparing for the ACT, SAT, and AP exams. All Tennessee residents can access these resources here: <http://tnel.tnsos.org/>

Tennessee Hope Scholarship

FAFSA

Early Postsecondary and National Industry Certifications

ACT Preparation Resources



Key Idea #12



Student readiness should be a school-wide effort. All educators should be encouraging students on their progression along their chosen **pathway**.

Closing Reflection:

What are your most important takeaways about each key idea from today? How can you apply the Key Ideas to your current role in your school?

Key Idea	Your Takeaways
Key Idea #10 All educators should understand their students' progress and assist in goal setting during regular instruction . Goals for students should be communicated regularly by all educators.	
Key Idea #11 In order to ensure readiness for all students, all students should receive individualized support toward their chosen pathway, regardless of their background or current academic performance.	
Key Idea #12 Student readiness should be a school-wide effort. All educators should be encouraging students on their progression along their chosen pathway .	

Final ACT, Postsecondary, and Career Readiness Messages

- ✓ **ACT for ALL: More than an assessment, the ACT is a powerful measure of readiness** - a valuable tool for students, educators, and employers to gauge readiness for postsecondary and career. Even students not planning on attending postsecondary directly after graduation can gather key information about their workforce readiness from the ACT.
- ✓ **K to 12: Connections between the ACT and postsecondary and career must be made early and often.** Our vision for student success is that every student will be prepared for *their chosen path in life*. It's the job of every K-12 educator to empower their students to be ready for their chosen path. Beyond academic preparation – a significant portion of ACT-tested standards are taught before high school – students need to understand how ACT performance impacts postsecondary opportunities.
- ✓ **Strong Instruction: Understanding and preparing for the ACT must happen alongside strong core instruction from K to 12** – “ACT Prep” in isolation will not lead to increased scores! Comprehension of complex texts across content areas is vital for success on the ACT. All educators should be using grade-level text in their subject areas every day as well as providing differentiation and intervention to meet the needs of their students.
- ✓ **Growth Mindset: Students can improve their ACT performance**, their ability is not fixed! Students who took the ACT more than once showed an average growth of 1 point, with 1 in 3 students growing 2 or more points. Economically-disadvantaged students qualify for two fee waivers to retake the ACT for FREE and receive FREE test preparation resources. Our accountability framework rewards student growth and performance on the ACT in relation to projected scores.
- ✓ **Believe it Matters: Growth on the ACT will be driven by our students' belief in whether or not the ACT matters for them.** As educators, we have the power to help students develop and connect their aspirations to college and career opportunities. Our expectations for students must be aligned to the fact that a high school diploma alone is no longer sufficient - for students or for employers – for maintaining the overall health of our economy. Including ACT in our accountability system reflects our belief that the ACT is for **all** students on track to receive an on-time general education diploma, including students with disabilities and English learners.

Final Training Reflection:

“Districts and schools in Tennessee will exemplify excellence and equity such that **all students** are equipped with the knowledge and skills to successfully embark upon their **chosen path in life.**”

- Vision Statement from *Tennessee Succeeds*

- What is **your role** in ensuring your students are “ready” for postsecondary and career?
- What **refinements do you commit to making in your instructional practices** and relationships with students toward this end? You can add changes you want to make to your daily instruction to your action plan in Module 1.



Find the tools you need for student success.

Introducing a new website from the Ayers Institute—
eduTOOLBOX.org.

Featuring instructional resources for educators in Tennessee and beyond, this unique online portal brings together hundreds of lessons, student activities, assessments, videos and professional learning materials across all subjects and grade levels.

Find teacher-created resources, former TNCore.org resources and more at **eduToolbox.org.**



Ayers Institute for
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